# EXHIBIT 2

## UNITED STATES DISTRICT COURT SOUTHERN DISTRICT COURT OF NEW YORK

KMS TECH, INC.,	X
Plaintiff,	Civil No.: 1:20-cv-01041-GBD-DCF
-against-	PLAINTIFF KMS TECH INC.'S
G MISSION INC., et al.,	EXPERT WITNESS DESIGNATION
Defendants	

Pursuant to Federal Rule of Civil Procedure, Rule 26(a)(2), Plaintiff KMS Tech, Inc. ("Plaintiff") designates Kenneth J. Amron ("Mr. Amron"), 545 West End Avenue, #3F, New York, NY 10024, as a retained expert witness in the above-entitled matter. Attached hereto and incorporated herein as **Exhibit 1** is Mr. Amron's report.

Mr. Amron has more than thirty years of experience in the software industry and is currently a practicing forensic consultant experienced with software and hardware interfaces and designing, coding, deploying and operating software that processes and integrates with digital media, including audio, video and imagery.

Mr. Amron's compensation for his work in preparing his accompanying report is \$350/hour. The rate for testifying in depositions or trial and preparing for such activities is \$450/hour. Mr. Amron's compensation was not and is not contingent upon the substance of his opinions or testimony, or the outcome of this case.

Plaintiff reserves the right to have Mr. Amron supplement his report as necessary or appropriate, and/or to provide a rebuttal report should there be a need. Plaintiff reserves the right to seek and present direct and rebuttal testimony from Mr. Amron based upon all evidence, disclosed materials in this matter, and testimony at trial.

Hard copy disclosure of the accompanying report and its incorporated and referenced materials on an accompanying USB drive was made on October 22, 2024, via FedEx, and confirmed as received on October 23, 2024.

Dated: October 25, 2024 New York, New York

Sincerely,

PARDALIS & NOHAVICKA, LLP

By: /s/Eleni Melekou
Eleni Melekou, Esq.
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Attorneys for Plaintiff

# EXHIBIT 1

•	)
KMS TECH, INC	)
Plaintiff,	) ) Civil Action No. 1:20-cv-01041 ) District Court, S.D. New York
vs.	
G. MISSION, INC.,	) )
Defendant.	)

### OPENING EXPERT REPORT OF KENNETH J. AMRON

## Contents

I.	INTRODUCTION	4
II.	PROFESSIONAL BACKGROUND AND QUALIFICATIONS	4
III.	COMPENSATION.	4
IV.	MATERIALS CONSIDERED	5
V.	SUMMARY OF FINDINGS REGARDING CODE of DEFENDANT'S PLAYBOX	8
VI.	SUMMARY OF METHOD USED TO PERFORM THE COMPARISONS	9
VII.	VISIT TO GMISSION	10
VIII	EMBEDDED COPYRIGHT	14
IX.	MATCHING OF C# SYNONYMS	18
X.	LINE-BY-LINE COMPARISON	22
A	. Identical Lines of Code	23
В	. Unmatched Synonyms - Lines of Code Not Identical	23
XI.	METHOD SIGNATURE COMPARISON	27

## Table of Figures

Figure IV-1 - Image of received copyright material	5
Figure VII-1: Plaintiff premise system labels	
Figure VII-2: Topside "PLAYBOX KARAOKE RENTAL" at Plaintiff's premises	12
Figure VII-3: Underside "PLAYBOX KARAOKE RENTAL" at Plaintiff premises	13
Figure VIII-1. Using File Explorer to view "Properties" display dialogue	15
Figure VIII-2. Windows file Windows "General" Properties for SSMediaPlayer.exe	16
Figure VIII-3. Windows file system "Details" Properties for SSMediaPlayer.exe	16
Figure VIII-4. Copyright visible for file, 'SSMediaPlayer.exe' using any text editor	17
Figure IX-1: Example annotation of synonym matching of d_playbox source code	20
Figure IX-2: Example annotation of synonym matching of p_deposit source code	21
Figure X-1: Line-by-line compare of d_playbox to copyright p_deposit	24
Figure X-2, Example differences of d_playbox and p_deposit are undetected synonyms	26
Figure XI-1 Method-signature Element Correspondence	27
Figure XI-2 Annotated Method Signatures d playbox and p deposit, example	29

#### I. INTRODUCTION

- 1. I, Kenneth Amron, have been retained by KMS Tech, Inc. ("KMSTech") counsel as a consultant and expert in this action. I was tasked to visit a location identified to me as G. Mission, Inc's ("GMission") premises, to review and obtain computer code "from all computers at that location" for the purpose of comparison to KMSTech's Copyright Deposit ("p deposit").
- 2. This report describes the visit and my findings regarding the comparison I performed between the computer code found at the Defendant's premises and the computer code of the Plaintiff's Deposit.

#### II. PROFESSIONAL BACKGROUND AND QUALIFICATIONS

- 3. I am a currently a forensic consultant and have over thirty years of experience in the software industry. My focus in a variety of roles has included digital media in both embedded, distributed and Internet configurations. A copy of my CV is attached as Exhibit 1.
- 4. Over the course of my career, I have been responsible for software and hardware interfaces and designing, coding, deploying and operating software that processes and integrates with digital media, including audio, video and imagery.

#### III. COMPENSATION.

5. My compensation is not dependent on the substance of my opinions or my testimony or the outcome of this case. I have no financial interest in the outcome of this case.

Case 1:20-cv-01041-GBD-VF

#### IV. MATERIALS CONSIDERED

6. In connection with this matter, I have reviewed a USB stick identified as TXu 2-172-793 received with a coversheet containing the "SEAL OF THE UNITIED STATES COPYRIGHT OFFICE", in a sealed plastic, the KMS Tech Copyright deposit, ("**p\_deposit**")<sup>1</sup>, provided to me by KMSTech counsel.

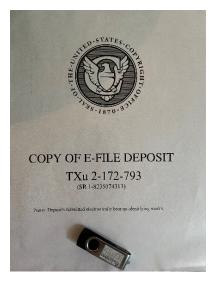


Figure IV-1 - Image of received copyright material

- 7. I have reviewed the deposition of Defendant, Mr. H. Kwak.
- 8. I have reviewed the deposition of Plaintiff's, developer, Mr. Songjae Han.
- 9. I have reviewed the deposition of Plaintiff, Mr. Yun Sue An.
- 10. I have reviewed the court order regarding discovery, ECF 158.
- 11. I have reviewed and subjected to analysis material copied from a Playbox<sup>2</sup> system, [see infra VII, "VISIT TO GMISSION"], specifically files found on the Playbox system at the Defendant's premises, precisely, files on that system's "E: drive", referred to herein as "d\_playbox" [see infra, ¶21.a].

<sup>&</sup>lt;sup>1</sup> The three file names found on the Deposit are:

 $<sup>(</sup>i)\ 1-8235074313-20191219-165336-0-6081967-F7541-playbox\_souece\_code.txt$ 

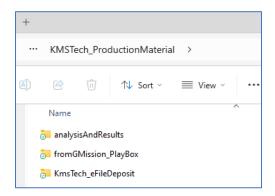
<sup>(</sup>ii) 1-8235074313-20191219-165336-1-6081992-42320-kmspos souece code.txt

<sup>(</sup>iii) 1-8235074313-20191219-165336-2-6081995-B3B01-ssmedia\_lite\_manager\_source\_code.txt These files were written in the Microsoft C# programming language.

<sup>&</sup>lt;sup>2</sup> The court order [See, ECF 158] provided for my access to all versions of Plaintiff's software in Defendant's possession. During my visit to the Defendant's premises, I was not granted permission to view the machines that were in the Karaoke rooms or any other system at the Defendant's premises. [See, infra, Section VII, VISIT TO GMISSION and deposition of H. Kwak, p. 112, 132, 135-137].

12. Accompanying this report produced are materials relied upon, found in directories as shown below:

Directory within	How obtained
accompanying material	
analysisAndResults	Produced by automated script analysis of this report
fromGMission_Playbox	Retrieved from E: drive of Defendant's Playbox
KmsTech_eFileDeposit	Received from Plaintiff's law firm.



13. The material has been produced on USB flash drive in a 7Z-archive file as below.



To validate the integrity of the received file, the following MD5 checksum can be performed after copying the file from USB and prior to access by using the following Windows DOS "certutil" command:.

#### certutil -hashfile KMSTech ProductionMaterial.7z MD5

14. To verify the integrity of the produced zip-archive file, in a windows command prompt, "CD" to the directory where KMSTech\_ProductionMaterial.7z has been copied and invoke the above command. If the file is identical to the material I produced, the MD5 hash will be identical to the hash shown below:

MD5 hash of KMSTech\_ProductionMaterial.7z:
c8a79292cf463b0b4dd07f8f64dae3c5
CertUtil: -hashfile command completed successfully.

15. I reserve the right to rely upon any additional information I become aware of after the date of this report.

### V. SUMMARY OF FINDINGS REGARDING CODE OF DEFENDANT'S PLAYBOX

Case 1:20-cv-01041-GBD-VF

- 16. The source code obtained by de-compiling the executable d\_playbox of the Defendant's system, when compared line-by-line to corresponding elements of the Plaintiff's p\_deposit source code is found to be substantially similar [see infra, section X "LINE-BY-LINE COMPARISON"].
- 17. The class method signatures of the source code of d\_playbox, when compared to the class method signatures of the p\_deposit, are nearly identical. This element of the author's unique creative expression is literally found in the d\_playbox and is essentially 100% identical to the corresponding elements of p\_deposit [see, infra section XI, "METHOD SIGNATURE COMPARISON"].
- 18. Owing to the substantial similarity, line-by-line (A, above) and the identical method signatures (B, above), it is my opinion that code of the Defendant's d\_playbox software, SSMediaPlayer.exe could only have been created using source code copied from the Plaintiff's Copyright Deposit.
- 19. The d\_playbox code files also include an embedded copyright notice [see, infra VIII "EMBEDDED COPYRIGHT"].

#### VI. SUMMARY OF METHOD USED TO PERFORM THE COMPARISONS

- 20. After reviewing the materials, I decided to perform both a line-by-line comparison of corresponding source code elements [see infra, X "LINE-BY-LINE COMPARISON"] and also to perform a comparison of the corresponding method signatures [see infra, XI, "METHOD SIGNATURE COMPARISON"]
- 21. In order to perform the line-by-line comparison, I followed the following steps:
  - a. I processed program code found on d\_playbox (i.e.,
    'E:\SSMediaPlayer\SSMediaPlayer.exe'), using the Jetbrains decompiler<sup>3</sup>. I refer to the de-compiler output as the d\_playbox source code.
  - b. Using an automated script and manual comparison, I was able to align blocks of source code comprising 96%<sup>4</sup> of the copyright-able synonym matched, d\_playbox source code with corresponding code of the p\_deposit. The alignment process was performed only once per d\_playbox C# source code file, to find which p\_deposit file and within that p\_deposit file the start and end line that corresponded to the lines

With reference to Figure X-1 the following categories of files and Lines of Code, ("LOC") were reviewed:

- i. <u>Processed by automated script</u>: 19 files of the 25 that were able to be compared using the automated script (see dPlaybox file enumeration, Figure X-1, Column M and row 27, "...Lines of Code Compared", total 4561).
  - a. Within the 19 files of the scripted comparison, i.e. rows 2-9, 12-15, 17-22, there were 217 d\_playbox LOC, that when aligned with the pDeposit Copyright source code were excluded from the comparison. Counts for these LOC were noted in column L by the script and totaled in row 28. These lines were the leading, header lines of the files. The differences are because of differences in how the Microsoft C# compiler and the JetBrains decompiler tools processed the source code. These differences were not attributable to developer creative expression.
  - b. There were 4561 LOC of d playbox compared line-by-line to p deposit.
- ii. Not processed by script: 6 of the 25 files that did not lend themselves to scripted comparison.
  - a. Not applicable to copyright: 3 of the 6 not processed by-script files, i.e., rows 10, 11 and 16, LOC, 358 LOC -- totaled in row 29 -- were not applicable to copyright. 2 were automatically generated by the Microsoft C# compiler and 1 was attributable to a well-known Microsoft interface.
  - b. <u>Manually reviewed</u>: Three of the 6 non-scripted files, i.e., rows 23, 24 and 25, with 72 LOC totaled in row 30 -- did not lend themselves to easy alignment and comparison line-by-line using the automated script. For these three, I performed a manual, alignment and comparison to obtain column M and N data.

<sup>&</sup>lt;sup>3</sup> https://web.archive.org/web/20240418164515/https://www.jetbrains.com/decompiler/

<sup>&</sup>lt;sup>4</sup> See, infra, Figure X-1: Line-by-line compare of d\_playbox to copyright p\_deposit, calculated from LOC totals: [M27] / ([M27] + [L28]), i.e. 0.96 = 4561 / (4561 + 217).

- within the d playbox file. [See the complete source code file enumeration, infra, Figure X-1: Line-by-line compare of d playbox to copyright p deposit.]
- c. The automated script matched commonly used C# synonyms [see infra, IX "MATCHING OF C# SYNONYMS"].
- d. The script used the Python "difflib", one of many variants of DIFF<sup>5</sup>, an industry standard utility program for comparison, developed at Bell Labs during the 1970s, to perform a line-by-line, comparison. The line by line source code comparison results are summarized in Figure X-1: Line-by-line compare of d playbox to copyright p deposit, showing:
  - names of d playbox source files compared
  - counts of lines of code compared
  - counts of lines of code excluded from this analysis
  - percent of lines of code compared that were found to be identical
- 22. I also performed an exhaustive automated comparison of the hundreds of class method signatures<sup>6</sup> of the d playbox to the corresponding class method signatures of the p deposit.

#### VII. **VISIT TO GMISSION**

- 23. On Feb. 12, 2024, at 1PM I visited Defendant's premises accompanied by Eleni Melekou, the Plaintiff's attorney.
- 24. At Karaoke City (22 West 32nd Street, 7th Floor, NYC 10001) we were met by the Defendant, and his attorney.

For history and additional information regarding the DIFF algorithms and variants, see:

https://web.archive.org/web/20240909172842/https://thelinuxcode.com/linux-diff-command-examples/

https://web.archive.org/web/20191225170546/https://www.gnu.org/software/diffutils/manual/diffutils.pdf

<sup>&</sup>lt;sup>5</sup> The automated comparison script of this analysis used the Python library "difflib" [see, https://docs.python.org/3/library/difflib.html#], to produce two forms of output, (i) HTML output which can be easily viewed in any browser [see accompanying production material at

<sup>&</sup>quot;..KMSTech ProductionMaterial/analysisAndResults/html/\*"] and (ii) "unified" output [see accompanying production material at "..KMSTech ProductionMaterial/analysisAndResults/unified/\*"]. The script processed the "unified" output in order to calculate the count summary data [see accompanying production material at "..KMSTech ProductionMaterial/analysisAndResults/loc counts.csv and an annotated version of that same analysis result data found infra, Figure X-1: Line-by-line compare of d playbox to copyright p deposit, p.23].

<sup>&</sup>lt;sup>6</sup> The method signatures exhibit the developer's creative expression in a concise form, as each signature includes a minimum of 5 distinct and unique choices made by the author of the source code. (See infra section XI.)

- 25. The Defendant began starting up a system in a small closet-sized room with multiple computers, multiple display monitors and other electronic equipment.
- 26. I asked the Defendant's attorney if the system I was being provided to review contained the Defendant's "copy" of the Plaintiff's system as I understood "copy" from reviewing relevant parts of the transcript of Mr. Kwak's (the Defendant's) deposition. The Defendant's attorney went to another room and when he returned, he responded that the system they were providing for my review was the system that had been provided to the Defendant by the Plaintiff, i.e. d\_playbox.
- 27. Figure VII-1 thru Figure VII-3, are images of the system produced during the visit.
- 28. This system was labeled on the topside as "Playbox Karaoke Rental", and "ROOM01" (Figure VII-1, below)



Figure VII-1: Plaintiff premise system labels

<sup>&</sup>lt;sup>7</sup> See, transcript content relevant to "copying", for example, *Deposition of H. Kwak*, pp. 112, 132, 135-137

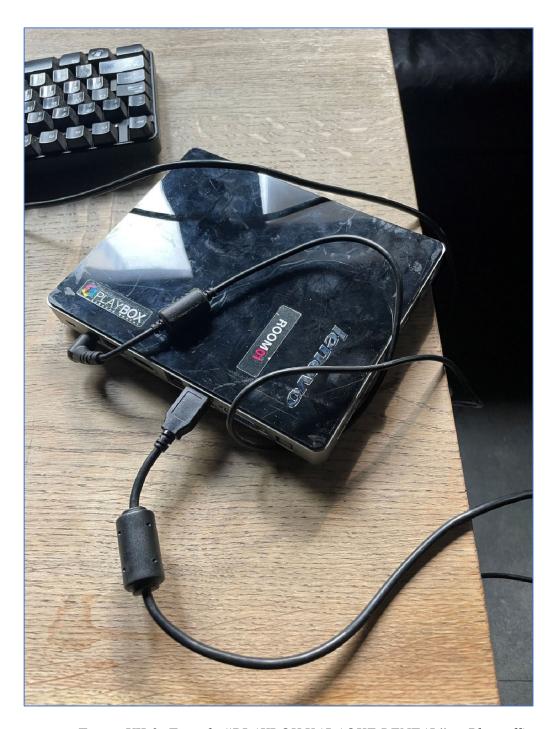


Figure VII-2: Topside "PLAYBOX KARAOKE RENTAL" at Plaintiff's premises



Figure VII-3: Underside "PLAYBOX KARAOKE RENTAL" at Plaintiff premises

I was able<sup>8</sup> to extract files from d playbox, onto a USB thumb drive. One of those files 29. retrieved was named "SSMediaPlayer.exe and the contents of the containing E: drive directory named "SSMediaPlayer"9.

<sup>8</sup> The system was configured to impede direct access to the file system. The Windows start up entered a "kiosk" mode in which user access to the underlying system was not available. By using a system boot interrupt keystroke within a 3-second start up window, I was able to get access to the file system.

<sup>&</sup>lt;sup>9</sup> See accompanying production material at the path,

<sup>&</sup>quot;..\KMSTech ProductionMaterial\fromGMission PlayBox\SSMediaPlayer\"

Page 18 of 46

- 30. At the completion of the extraction, I again asked if I could review the Defendant systems that were in each of the Defendant Restaurant's Karaoke rooms or review the systems with the "copy". I was informed by the Defendant's attorney that would not occur.
- The limitation by the Defendant's attorney of my visit to review only the D Playbox 31. system and not also the other systems at the Defendant's premises, as noted in the relevant court order, [see ECF 158], precluded determination of answers to questions such as:
  - a. How were the copies used?
  - b. Where were the copies used?
  - c. How had the copies been obtained from the D Playbox system?
  - d. How many copies had been made?
  - e. How were those copies packaged and installed?
  - f. Was it easy for those copies to then be provided to third parties?
- Any literal "copy" of the D\_Playbox software 10-- if subjected to the analysis of this 32. report, would result in the same conclusions as from my analysis of D Playbox, i.e. those literal copies were made using source code copied from Plaintiff's Copyright Deposit.
- 33. Failure to permit my review of the other systems at the Defendant's premises prevents me from making a determination that as of the date of my visit, those systems DID NOT use copies of the Plaintiff's Copyright Deposit or somehow were not substantially similar.
- 34. If the Defendant's defense is that their Karaoke system includes elements that were not literally copied, and that somehow the portions copied are not substantially similar to P Deposit, then that hypothetical Defendant system would need to be provided to me for review. However, I asked twice for any such systems to review during my visit and my requests were not honored.

#### VIII. EMBEDDED COPYRIGHT

35. Upon examination of the SSMediaPlayer.exe file obtained from d playbox system a copyright is easily viewed using the native Microsoft system file explorer, without any additional tools. This can be accomplished with the following steps and as shown in the following screen shots:

<sup>&</sup>lt;sup>10</sup> For example, literal copies such as, (i) a literal copy of the file 'ssmediaplayer.exe' software found on D Playbox or (ii) a literal cloning of the entire D Playbox system or (iii) even a run-time reference from the Defendant's systems to the D Playbox system operating as a file-server thereby repeatedly performing literal copying with each access, e.g. via a filesystem, network or the Internet.

- Using the Microsoft built-in file explorer, select (single left-click) on the file 'SSMediaPlayer.exe' (see Figure VIII-1, up pointing red arrow annotation)
- "right-click" when the SSMediaPlayer.exe file is highlighted in grey. This displays a popup where one choice is "**Properties**" (see Figure VIII-1, right pointing red arrow annotation)
- Selecting "**Properties**" drop-down choice will display a pop-up dialog display, with the "**General**" tab selected by default (*see Figure VIII-2*).

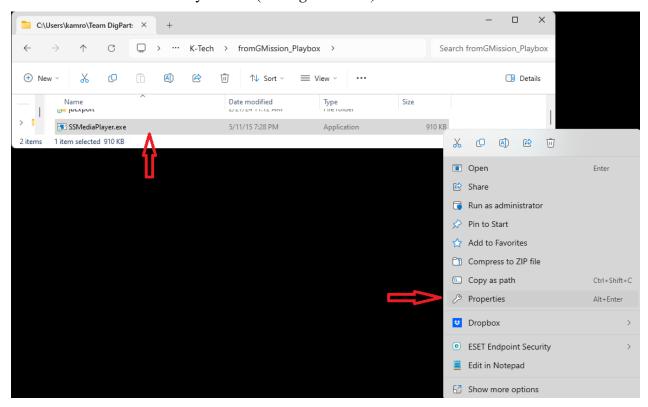


Figure VIII-1. Using File Explorer to view "Properties" display dialogue.

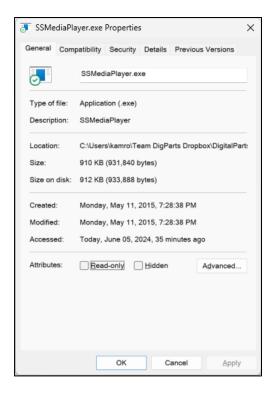


Figure VIII-2. Windows file Windows "General" Properties for SSMediaPlayer.exe

• Selecting the "**Details**" tab, shown above, displays a pop-up dialog that shows the embedded copyright along with other properties (*see below, Figure VIII-3*).

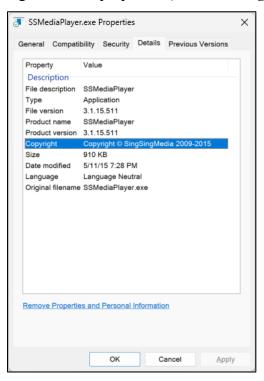


Figure VIII-3. Windows file system "Details" Properties for SSMediaPlayer.exe

36. An alternate way to view the copyright is to simply open the file 'SSMediaPlayer.exe' using the system Notepad editor. The last few lines of the file content visible in the editor (*see Figure VIII-4*) exhibit this copyright.

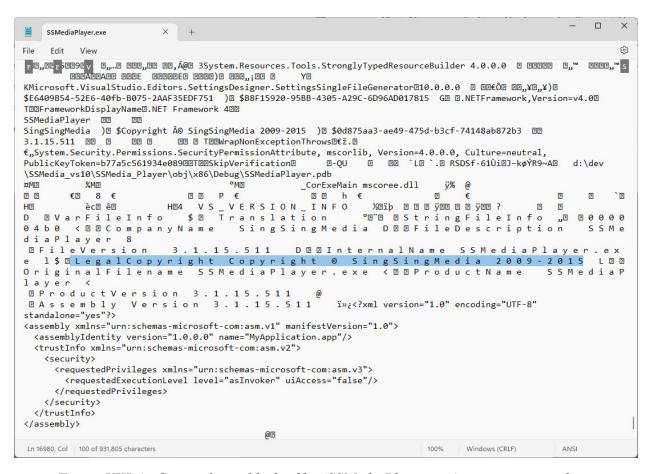


Figure VIII-4. Copyright visible for file, 'SSMediaPlayer.exe' using any text editor.

#### IX. MATCHING OF C# SYNONYMS

37. Use of synonyms in C# is akin to paraphrasing in natural language. English language paraphrase examples are:

Original Sentence: "James Smith went to the concert to hear music"

Paraphrased: "Jim went to the concert to hear some music."

Original Sentence: "The scientific community reached a consensus on climate change."

Paraphrased: "Scientists all agreed about climate change."

**Original Sentence**: "The sun rises in the east and sets in the west."

Paraphrased: "The sun comes up over there and goes down over here."

- 38. One category of C# language synonyms, is differently specified object hierarchies. The JetBrains decompiler uses fully specified object hierarchies, whereas the Microsoft compiler allows less than fully specified hierarchies. The source code supplies the full specification resolving these less than fully specified symbols with reference to its context in the source code.
- 39. In this category of symbol / scope hierarchy are examples such as:
  - "System.Windows.Forms."
  - "Windows.Forms."
  - "Forms."
- 40. These can be identical expressions for the C# object "System.Windows.Forms.
- 41. In C# language, another synonym category is the use of variable number of spaces, tabs or blank lines. The volume of white space, beyond a single space, is all that same as a single space and variations are not a creative expression of the author.
- 42. A limited set of synonym matching was performed by the automated script that included the following categories:
  - a. Matching of white space, such as blank lines, spaces or tabs.
  - b. Removal of comments
  - c. Object scoping matches:
    - i. Matching of local "this" scoping, e.g.
      - "this.X"

- ii. Matching self-class, implicit scoping, for example, within a class named "Program" e.g., the synonyms:
  - "Program.logger"
  - "logger" within the class named "Program"
- iii. Matching of explicit scoping for .NET system and other library objects, e.g. ¶ 39 above.
- d. Matching explicit variable type casts, for the same numerical value, e.g.
  - "(byte) 0"
  - "0"
- e. Matching single-line lamda function definitions, to multi-line definitions, e.g. note yellow highlighted differences in these identical, (matched) expressions

```
private void btnExit_Click_1(object sender, EventArgs
e) => logger.Debug("Exit button clicked");
private void btnExit_Click_1(object sender, EventArgs
e)

{
    logger.Debug("Exit button clicked");
}
```

- 43. In the screenshot comparisons<sup>11</sup>, (*Figure IX-1 and Figure IX-2, below*) the red indicates revisions made to match synonyms, whereas lines without any red are identical.<sup>12</sup>.
- 44. Figure IX-1, below, exhibits the <u>raw</u> **d\_playbox** source code (*right side of screenshot*) compared to its synonym matched version (left side of screenshot) for the "Program" class.
- 45. Figure IX-2, below, exhibits the <u>raw p\_deposit</u> source code (right side of screenshot) compared to its synonym matched version (left side of screenshot) for the "Program" class.

<sup>&</sup>lt;sup>11</sup> These screenshots, (i.e. Figure IX-1: Example annotation of synonym matching of d\_playbox source code, infra p. 19 and Figure IX-2: Example annotation of synonym matching of p\_deposit source code, infra p. 20), use a text editor tool DIFF algorithm variant [see supra footnote 5] to perform the comparison. The name of this variant is "SlickEdit Diffzilla Pro [see, <a href="https://web.archive.org/web/20240716230510/https://www.slickedit.com/compare-editions#:~:text=(Pro%20only)%20View%20and%20reconcile,e.g.%20function%20definitions)%20to%20diff.]

<sup>&</sup>lt;sup>12</sup> The comparison screenshot examples of this section highlight the matching of C# synonyms performed prior to the line-by-line comparison of d\_playbox to p\_deposit. The filenames of these examples can be seen near the top of the screenshots.

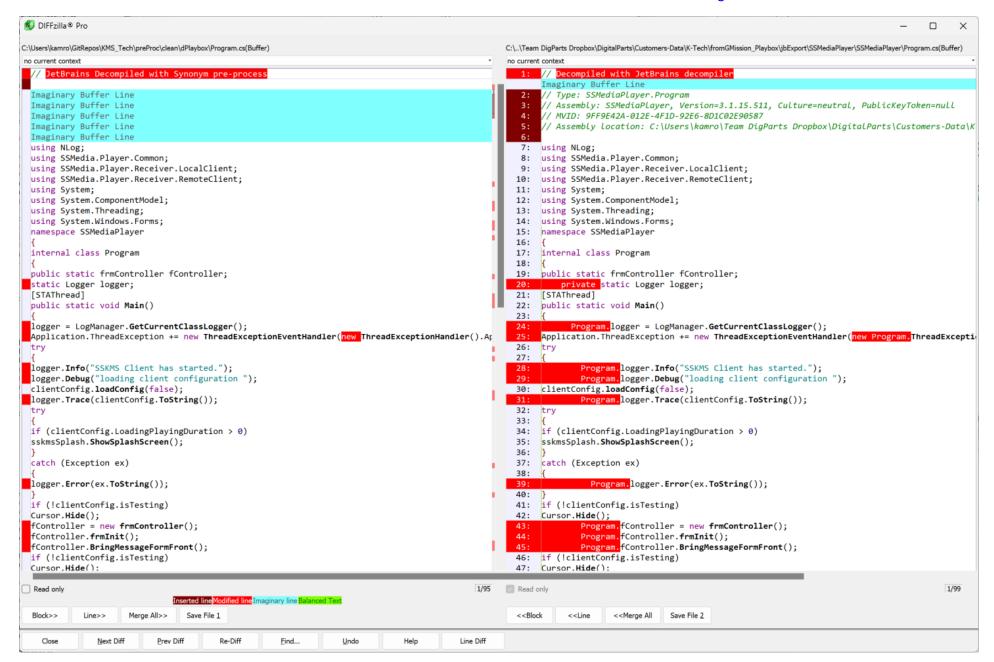


Figure IX-1: Example annotation of synonym matching of d playbox source code

(Left, after matching; Right is prior to matching.)

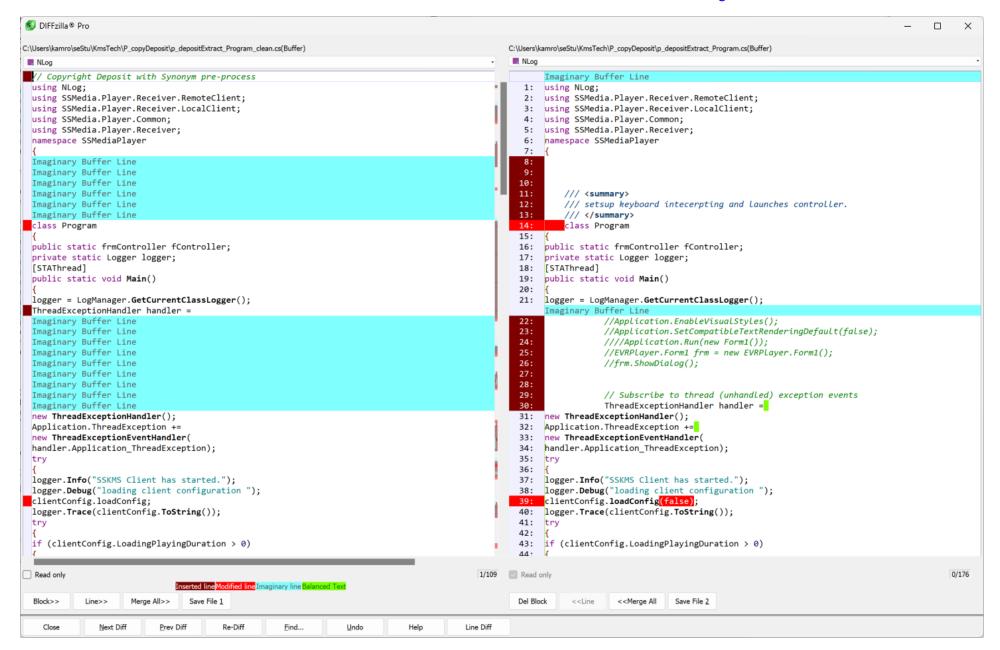


Figure IX-2: Example annotation of synonym matching of p\_deposit source code

(Left, after matching; Right is prior to matching.)

### X. LINE-BY-LINE COMPARISON

- 46. The automated script first corresponded the start and end line numbers of similar source code elements (e.g. lines of code of identically named classes) of d\_playbox and p\_deposit. The python script difflib tool (*see, supra, footnote 5*) was then used to perform the comparison of d\_playbox source code to p\_deposit. For each d\_playbox class file, difflib compared the d\_playbox lines, to the corresponding lines found in p\_deposit files.
- 47. The line-counts and results of these line-by-line comparisons are found in Figure X-1, on p. 24, below.
- 48. The columns of that table have the following meaning:

Col	Caption	Meaning
A	dPlaybox file compared	Name of file from dPlaybox compared
В	sort Seq	Sequence of dPlaybox file processed.
С	File "LOC" Lines of Code	Count of Lines of Code of the file
D	File Type	Type of source code found in the file.
		"class" files are one programmatic element of the C# language. A C# class is a container of creative expression of the program's author. It exhibits the author's original creativity in his/her choice of symbolic names, the name of the class, the name of its variables, the method names and the method-signatures and even the sequence of the methods and variable declarations. These class files were recognized by the automated scripted alignment and comparison and the results of that comparison were written to several columns of the table of Figure X-1, specifically, columns C, G, H, I, J, K, O.
		"names" files contained symbolic definitions. Both of these files contained compiler generated code, not authored by a developer. These lines of code could not be expected to be creatively unique and so aside from manually reviewing them and counting the lines of code, I excluded them from my consideration.
		"wrap" contained methods that were a "wrapper" of the well-known Micorosoft DirectShow interface. This well-known interface could not be expected to be creatively unique and so aside from manually reviewing it and counting the lines of code, I excluded these lines of code from my consideration.
		"iface" and "enum" contained symbolic definitions and interfaces. I had to compare the content of these files manually in order to align them with the appropriate start and end lines of the Copyright source code files, as they were not recognized by the automated script. For these files, I then manually compared line-by-line and produced the data of the corresponding columns of Figure X-1.
Е	Compare method	"Scripted" were processed automatically as described herein, using difflib.  "NA" were excluded from the comparison results.  "Manual" were reviewed manually.
F	className	If the filetype (column E) is "class", then this is the name of the class used for the automated alignment. Else this is blank
G	dPlaybox StartLine	StartLine of file named in (A) for line-by-line comparison
Н	dPlaybox EndLine	EndLine of file named in (A) for line-by-line comparison
I	pDeposit filename	Name of pDeposit file that contains corresponding lines of code found in the Copyright deposit.

J	pDeposit StartLine	StartLine of file named (I) for line-by-line comparison
K	pDeposit EndLine	EndLine of file named (I) for line-by-line comparison
L	dPlaybox LOC NOT Compared	This is the count of any LOC that may have been skipped of dPlaybox file
M	dPlaybox LOC Compared	This is the count of LOC compared line-by-line of dPlaybox file
N	Line-by-line % D identical	Percent of LOC compared from dPlaybox that were identical (and in the same sequence) to LOC in pDeposit
О	LOC Identical	Total LOC compared from dPlaybox that were identical (and in the same sequence) to LOC in PDeposit

#### A. Identical Lines of Code

- 49. The aggregate result for identical lines of code of dPlaybox compared to pDeposit is found in Figure X-1, row 27.
- 50. 3269 lines of code out of 4561 lines of code compared were identical, that is 72% of the lines of code of d\_playbox were found to be identical to lines of code of p\_deposit, after alignment and synonym matching.
- 51. See footnote 4, above on p. 9 for details regarding the lines of code reported in that table.
- 52. The reported "identical" LOC is a lower-bound metric for similarity. Because of many synonyms not detected by the automated script, (see ¶¶ 53, 54 and 55), the scripted, overall, 72% LOC "identical" is a conservative estimate of similarity.

### **B.** Unmatched Synonyms - Lines of Code Not Identical

- 53. Many lines that do not match identically after the limited pre-processing synonym matching, were spot checked and found to be synonyms that, owing to their syntactic complexity were unmatched by the automated script. These unmatched synonyms are related to differences of the Microsoft C# compiler and the JetBrains C# decompiler tools that processed the code.
- 54. Some lines of code that do not match were found to be trivial revisions of p\_deposit, some of those also unmatched synonyms, and overall these revisions do not impact the creative expression of p\_deposit.
- 55. The scripted line-by-line comparison lines identified as "not identical", but which are infact unmatched synonyms contribute to the calculated 28% LOC "not identical" result.

	A	В	<u> </u>	D	Е	E	G	Н	ı		к	1 1	М	N	0
_	Λ	В	File	D			0	- ''	ı	,		dPlay	dPlav	14	
			"LOC"				dPlav	dPlav		рDe		box		Line-by-	
			(Lines				box	box			posit			line % D	LOC
			Of	File	Compare		Start	End		1. 1	End (				Identi
1	dPlaybox file compared	sortSeq	Code)	Туре	method	className	Line	Line	pDeposit fileName	Line	Line	ared	ared	1	cal
2	preProc/clean/dPlaybox/ucSongEntry.cs	3	136	class	Scripted	ucSongEntry	9	136	6-0-6081967-F7541-playbox_souece_code.tx	2466	2611	8	128	88.28%	113
3	preProc/clean/dPlaybox/PlayerAudioUtil.cs	4	37	class	Scripted	PlayerAudioUtil	8	40	6-0-6081967-F7541-playbox_souece_code.tx	2759	2796	7	33	54.55%	18
4	preProc/clean/dPlaybox/SSMediaPlayerCommon.cs	5	430	class	Scripted	SSMediaPlayerCommon	18	442	BB01-ssmedia_lite_manager_source_code.tx	2193	2685	17	425	52.00%	221
5	preProc/clean/dPlaybox/LocalCommandReceiver.cs	7	43	class	Scripted	LocalCommandReceiver	9	46	6-0-6081967-F7541-playbox_souece_code.tx	3275	3322	8	38	57.89%	22
6	preProc/clean/dPlaybox/LiteManagerReceiver.cs	8	134	class	Scripted	LiteManagerReceiver	14	134	5-0-6081967-F7541-playbox_souece_code.tx	3338	3461	13	121	45.45%	55
7	preProc/clean/dPlaybox/RemoteCommandReceiver.cs	9	136	class	Scripted	RemoteCommandReceiver	14	136	6-0-6081967-F7541-playbox_souece_code.txt	3477	3602	13	123	44.72%	55
8	preProc/clean/dPlaybox/ControllerEvent.cs	10	14	class	Scripted	ControllerEvent	8	14	6-0-6081967-F7541-playbox_souece_code.tx	2904	2910	7	7	71.43%	5
9	preProc/clean/dPlaybox/PlayerController.cs	11	230	class	Scripted	PlayerController	12	233	5-0-6081967-F7541-playbox_souece_code.tx	2923	3260	11	222	69.37%	154
10	from GMission_Playbox/jbExport/SSMediaPlayer/SSMediaPlayer/Properties/Resources.cs	12	39	names	NA			No	OT APPLICABLE - Compiler generated code						
11	from GMission_Playbox/jbExport/SSMediaPlayer/SSMediaPlayer/Properties/Settings.cs	13	21	names	NA			N	OT APPLICABLE - Compiler generated code						
12	preProc/clean/dPlaybox/frmController.cs	14	835	class	Scripted	frmController	20	919	6-0-6081967-F7541-playbox_souece_code.tx	21	1037	19	900	69.89%	629
13	preProc/clean/dPlaybox/frmRemoteController.cs	15	644	class	Scripted	frmRemoteController	14	653	6-0-6081967-F7541-playbox_souece_code.txt	1057	1709	13	640	89.53%	573
14	preProc/clean/dPlaybox/frmMainMessage.cs	16	606	class	Scripted	frmMainMessage	16	645	6-0-6081967-F7541-playbox_souece_code.tx	3620	4243	15	630	75.24%	474
15	preProc/clean/dPlaybox/frmMainMessageBar.cs	17	406	class	Scripted	frmMainMessageBar	16	442	5-0-6081967-F7541-playbox_souece_code.tx	1844	2264	15	427	73.54%	314
16	from GMission_Playbox/jbExport/SSMediaPlayer/SSMediaPlayer/MediaPlayerImpl.cs	18	298	wrap	NA		N	OT APP	PLICABLE - Well known Microsoft interface						
17	preProc/clean/dPlaybox/ucUIFeedBack.cs	19	216	class	Scripted	ucUIFeedBack	12	219	BB01-ssmedia_lite_manager_source_code.tx	2698	2938	11	208	57.69%	120
18	preProc/clean/dPlaybox/frmWMediaPlayer.cs	20	169	class	Scripted	frmWMediaPlayer	12	169	6-0-6081967-F7541-playbox_souece_code.tx	4268	4435	11	158	85.44%	135
19	preProc/clean/dPlaybox/frmWMediaPlayerBar.cs	21	166	class	Scripted	frmWMediaPlayerBar	12	166	6-0-6081967-F7541-playbox_souece_code.txt	2290	2454	11	155	85.81%	133
20	pre Proc/clean/dPlaybox/sskmsSplash.cs	22	130	class	Scripted	sskmsSplash	13	142	6-0-6081967-F7541-playbox_souece_code.tx	2814	2894	12	130	49.23%	64
21	preProc/clean/dPlaybox/Program.cs	23	94	class	Scripted	Program	13	94	6-0-6081967-F7541-playbox_souece_code.tx	1728	1827	12	82	84.15%	69
22	preProc/clean/dPlaybox/KeyIntercept.cs	24	57	class	Scripted	KeyIntercept	9	65	6-0-6081967-F7541-playbox_souece_code.txt	2694	2749	8	49	73.47%	36
23	from GMission_Playbox/jbExport/SSMediaPlayer/SSMediaPlayer/ifMediaPlayer.cs	25	35	iface	Manual		7	65	5-0-6081967-F7541-playbox_souece_code.tx	3796	3837		36	100.00%	36
24	from GMission_Playbox/jbExport/SSMediaPlayer/SSMediaPlayer/ifMainMessage.cs	26	25	iface	Manual		7	45	6-0-6081967-F7541-playbox_souece_code.txt	3752	3787		24	100.00%	24
25	from GMission_Playbox/jbExport/SSMediaPlayer/SSMediaPlayer/UIControl Mode.cs	27		enum	Manual		9		3B01-ssmedia_lite_manager_source_code.txt				8 1	100.00%	8
26	preProc/clean/dPlaybox/Util.cs	28	20	class	Scripted	Util	7	23	BB01-ssmedia_lite_manager_source_code.tx	2947	2966	6	17	64.71%	11
27									TOTALS FOR dPlaybox FILES COMPARED				4561	72%	3269
28								TO	TAL dPlaybox HEADER LOC NOT COMPARED			217			
29									TOTAL LINES NOT APPLICABLE			358			
30									TOTAL LOC COMPARED MANUALLY			72			

Figure X-1: Line-by-line compare of d\_playbox to copyright p\_deposit

Page 29 of 46

- 56. In general, upon manual review, differences detected by difflib tool as part of the automated script, were found to be caused by the following:
  - a. Differences resulting from differently partitioned source code, e.g. JetBrains used a separate file for each C# class, whereas the Plaintiff's developer had registered the Copyright using three files which contained all the C# classes.
  - b. Differences because of unmatched synonyms, where the complexity of describing the synonym precluded its inclusion in the scripted comparison. These categories of excluded synonym detection included, but were not limited to:
    - i. Multi-line lambda expressions
    - ii. Swapped and negated boolean conditionals
    - iii. Multi-line continuation
  - c. Differences because of trivial source code revisions, such as bug fixes that may have occurred subsequent to the Copyright registration.
- An excerpt visual example<sup>13</sup> of the scripted difflib comparison of d playbox and 57. p deposit is the screenshot of a comparison of a few lines of the class named "Program". (See *Figure X-2, below, with differences highlighted in red and green.*)
- 58. The complete HTML comparison output can be found in the accompanying production material [see the files, one for each file of the comparison found in the accompanying production material at "../KMSTech ProductionMaterial/analysisAndResults/html/\*"]. Viewing these files one can easily see the basis for my conclusion that the d playbox could only have been created using source code substantially copied from the Plaintiff's Copyright Deposit.

<sup>&</sup>lt;sup>13</sup> This example is the HTML output obtained using the scripted difflib [see supra, footnote 5]

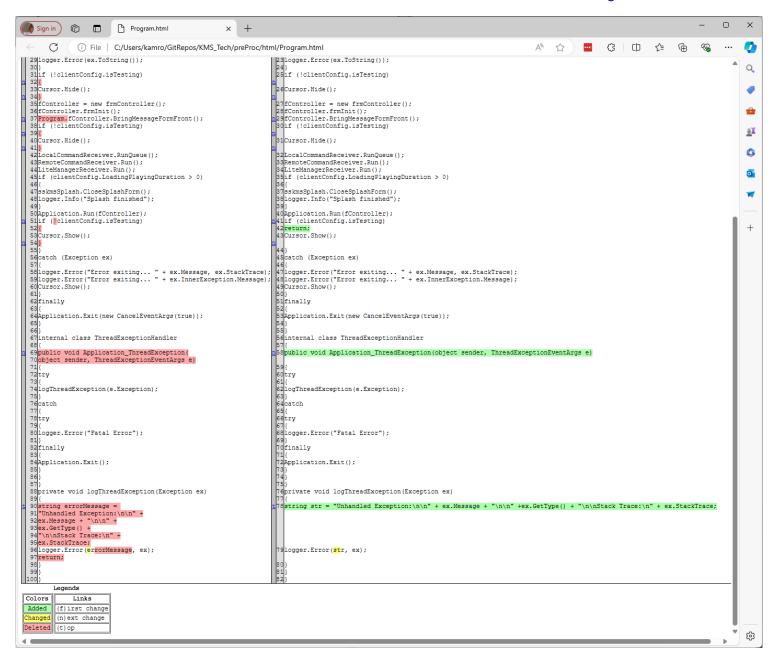


Figure X-2, Example differences of d playbox and p deposit are undetected synonyms

(Left: p\_deposit, Right: d\_playbox), [produced by Python difflib]

#### XI. METHOD SIGNATURE COMPARISON

59. The following table relates the method-signature elements of a C# program, to elements of the text of a multiple chapter book.

Multi-chapter book element	C# Method-signature element
chapter group heading	class name (that includes one or
	more method-signatures)
chapter title / narrative element	method name
chapter plot outcome	method return value type
character names	method parameter names
character attributes	method parameter types

Figure XI-1 Method-signature Element Correspondence

- 60. The lines of C# source code that comprise the method-signatures of each class are a concise enumeration of the author's unique creative choices. And the method signatures are included literally in the copyright deposit.
- Finding similar or identical method signatures of a copyrighted work -- is indicative of 61. copying.
- 62. A single C# class includes one or more methods, each with a signature exhibiting the developer's creative choices. The Copyright author's selection of meaningful symbolic class names and each of the class's one or more method names, the method-parameters, the method-parameter names, the method-parameter types and the method return-types are literally found in the copyright deposit and can be easily extracted and compared between two bodies of source code (see below, Figure XI-2 "Annotated Method Signature").
- 63. The method signatures of this extract screenshot example comparison of, "reserveSong" of the class "frmController" are found in the example Figure XI-2 on lines 707 and 476.
- 64. As can be easily seen, this example method-signature when compared is precisely identical in the two bodies of source code.
- 65. In general, a method signature includes the following elements (with the specific example noted):

- i. The method's class name, i.e. the class name that encapsulates the method,i.e. the class within which the method is defined, *in this example*,"frmController".
- ii. The method name, in this example, "reserveSong"
- iii. The method return type, i.e. for "reserveSong", "private void"
- iv. The method's parameters, i.e. for "reserveSong", three parameters, (i)

  "songcode", (ii) "currentFunction", and (iii) "Requestor"
- v. The parameter types i.e. for these three parameters, (i) "string", (ii) "string", and (iii) "string".
- vi. The sequence of the method signature within all the method signatures of the encapsulating class.

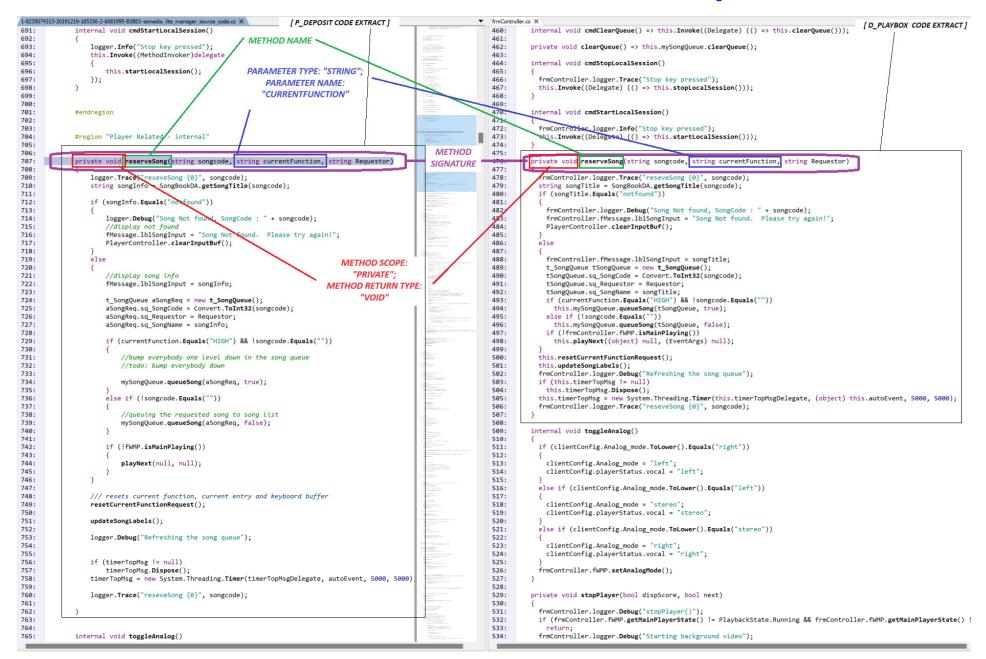


Figure XI-2 Annotated Method Signatures d playbox and p deposit, example

- 66. The conservative 72% identical line-by-line comparison result, counts and percent of identical lines compared establish the "substantial similarity" finding (see supra section X, and Figure X-1). This metric, i.e. the line-by-line comparison assumes that each line of source code of p deposit found in d playbox contributes uniformly to the conclusion of "substantial similarity" and that each line is equally demonstrative of similarity. I don't believe this assumption is true in source code or in natural language texts.
- The literal lines of code which are recognizable in the C# syntax as method-signatures<sup>14</sup> 67. embody the lion's share of the author's unique and creative decisions choosing the names of program text entities, the attributes of the named entities and relationships among the named entities of p deposit.
- 68. The detailed result of the scripted comparison of method signatures extracted from d playbox compared to the method signatures of p deposit is found in Exhibit 2.
- 69. The files of d playbox source code are enumerated, in Figure X-1, cells [A2] – [A26]. A sequence number is assigned to each file name for reference between Figure X-1 and Exhibit 2 (see above, Figure X-1, cells [B2] – [B26], compare to Exhibit 2, cells [A2] – [A256]).
- 70. In summary, for approximately 5000 lines of d playbox source code (see above, Figure X-1, cells [M27] + [L28] + [L29]), 252 method-signatures were found (see detail of Exhibit 2, rows 2-256).
- 71. Of these 252 method signatures, only two, i.e., (i) "Dispose" and "(ii) InitializeComponent" of class "sskmsSplash" were not found by the script in p deposit. Upon detailed investigation these "missing" methods were found to be present in p deposit, but not

<sup>&</sup>lt;sup>14</sup> Internal method signatures such as those compared herein are distinguished from a published API (of method signatures), in that internal method signatures are not programmatically accessible by the user of the program. Internal method signatures are not visible or accessible to users of the program. The internal method signatures compared herein do not comprise an API, neither does any API exist, that I am aware of.

detected as result of a limitation of the comparison script<sup>15</sup>. Manual review found these and when compared, they were also found to be identical in d\_playbox and p\_deposit.

- 72. Of the 250 methods that were compared by the comparison script, 247 were found to be identical for all properties noted above (see above, paragraph 65 (i) (vi)).
- 73. Manual review of the three methods not found by the script to be identical, when reviewed manually discovered that the "difference" detected by the comparison script was the use in p\_deposit of *upper-case* "O" for "Object", whereas *lower-case* "o" for "object" was found in d\_playbox (*see Exhibit 2, rows, 116, 172 and 194*).
- 74. In summary, by using automated comparison of the method-signatures, and manual review these creative elements were found to be essentially 100% identical between the two source codes. The 100% identical method-signatures finding, strongly amplifies the conservative 72% identical lines of code finding. It provides irrefutable foundation to the conclusion that the d\_playbox code is substantially similar to p\_deposit and could only have been created using source code copied from p\_deposit.

Dated: October 22, 2024

Kenneth J. Amron

Pittsfield, MA

<sup>&</sup>lt;sup>15</sup> The script failed to detect these two methods of the same containing class name, but when the containing class was defined in two different, non-contiguous file locations using the C# "partial" class designation.

Exhibit 1: Kenneth J. Amron CV (4 pages)

#### Kenneth J. Amron

545 West End Avenue, #3F New York, NY 10024

kamron@digital-parts.com (917) 439-8984

#### **EXPERIENCE**

#### Digital Parts, Inc. -- New York City, NY

#### 2003 - present

Technology Consultant: I provide expert technology consulting (software projects enumerated inline) and also support for patent, copyright and trade secret cases (see Litigation Support' section below). Recent enterprise software consulting projects have included software design, development and dev-ops projects: US-wide real estate transaction data digital media retrieval system, [for Smarter Agent, (2017-2023)]; Airport Risk Planning -- platform for US airports [for FAA Transportation Research Board, (2012/3)]; and a follow-up project, Airport Emergency Planning platform targeted to Node Webkit, [also for FAA TRB, (2017/8)]; Platform for video event integration (e.g. sensor enhanced and POS, video-events, etc [for Time Warner Cable, Atlanta Hartsfield International Airport, Banco Santander and others (2003-2011)].

#### 2001 - 2003

#### IDT Technology Ventures, L.L.C. -- New York City, NY

Founder, Technology Lead: I provided technology consulting to IDT Corporation, leading a rapid prototype development group and advising IDT's CEO regarding investment opportunities. Media ventures included: TV.TV, A web-based CDN innovation hosting a digital media marketplace supporting: transaction settlement, content acquisition, digital rights management. Financial service initiatives included: Caller-paid purchasing leveraging IDT's net2Phone and pre-paid phone service for E-commerce.

#### 1999 - 2001

#### Arbinet -- New York City, NY

CTO / VP Software Development: I directed software development and technology strategy, creating an operational *global trading system for telecom "minutes"*— the key ingredient towards Arbinet's IPO success and acquisition. Arbinet's AGCN Exchange advertised international voice communication buy/sell offers by wholesale telecom providers, matching trades to originate or terminate voice communications based on capacity, quality and market. At the daily close, the system would re-route capacity, calculate wholesale settlement and generate end-user billing.

#### 1981 - 1999

#### Dun & Bradstreet, DunsGate -- New York City, NY

Global Architect: I unified D&B's commercial credit technology offerings, expanding services to over 70 countries deploying to European, Asia Pacific and US data centers. Director, Software Development: Managed, mentored and incentivized technical staff, building an easily scaled, messaging gateway, supporting internationally diverse D&B financial services for IVR, FAX, network and desktop access.

Lead Developer: Built network concentrator, developed gateway communication protocols and application framework supporting remote interactive voice response platform. deployed internationally.

Systems Engineer: Device drivers and applications for custom A/D and D/A hardware, CSMA/CD, SYNC and ASYNC gateway communications.

#### 1979 - 1981

#### Advanced Computer Techniques -- New York City, NY,

Key Engineer for compiler and operating system initiatives sold to: NASA and DARCOM. Developed run-time interfaces and code-gen for DARCOM's portable OS / compiler initiative, for Pascal, Fortran, Cobol runtime and inter-process communication.

#### 1977 - 1979

Burroughs Corporation, Federal and Special Systems Group -- Paoli, Pennsylvania Systems Engineer for Operating System of BSP supercomputer. Developed filesubsystem and FORTRAN run-time. BSP was competitor of the CRAY-1. Developed the OS Master Control Program on simulator and migrated to prototype hardware.

#### SOFTWARE SKILLS

Enterprise software
Product development
Distributed computing
Media processing
Signal processing
System integration & deployment
Real-time data communications
Operations Integration
Team practices
Requirements synthesis
Monitoring, logging, metrics
Team leadership & mentoring
Software Development
C/C++

Python
Java
Javascript
C#/VB/C++/CLI
COBOL
SQL/PL-SQL
Linux/Ubuntu/WSL
NET/Visual Studio/Installshield
Salesforce/Apex/Force.com
Oracle Application Framework
CX\_Oracle (Python, C++)
Oracle SQL Developer
AWS – EC2, S3
Google Cloud - GCP

Datadog
Postman
Mozilla/XUL/Firebug
NodeJS/Node-Webkit
XULRunner
Silverlight
Logmatic
Javascript/jQuery/Ajax/JSON
HTML/XHTML/CSS/HTML5
XML/XSLT/XSD/XPath/SOAP
GIT / SVN / CVS
Sybase
DB2
OpenGL, WebGL

1982 - 1986

New York University, Courant Institute of Mathematical Sciences New York City, NY,

Master of Science - Applied Mathematics / Computer and Information Science

1973 - 1977

State University of New York at Albany Albany, NY,

Bachelor of Science - Applied Mathematics / Computer Science (Magna Cum Laude)

#### **LITIGATION SUPPORT**

4/2022 – Current: Consultant to Markit Group Ltd., *Capelogic, Inc. v. Markit Group Limited,* Case 3:22-cv-00085-ZNQ-RLS. Technology and code review for a trade secret / contract dispute. (Gibbons, P.C., Samuel Portnoy, Kate Janukowicz).

5/2021 – Current: Consultant to Kewazinga, *Kewazinga Corp. v. Google.*, Case No. 1:20-cv-1106-LGS. Source code review of Google Maps, Streetview feature and expert report in support of a patent dispute. (Brown & Rudnick, contact Ian G. DiBernardo).

5/2019 – 3/2020: Consultant to Kewazinga, *Kewazinga Corp. v. Microsoft Corp.*, No. 1:18-cv-4500-GHW. Source code review of Microsoft Bing Maps, Streetside feature in support of a patent dispute. (Stroock & Lavan, contact Kenneth Stein).

6/2018 - 2020: Consultant to Ultimate Software Group, Inc, re: *Master Tax LLC v. Ultimate Software*, Case No 2:18-cv-01463. Litigation support, reviewing both parties' software and claims in connection with a trade-secret dispute. (Stroock & Lavan, contact Jason Sobel).

1/2018: Consultant to US Phillips, Corp, *Philips v. HTC*, Case No 15-1126-GMS for code review of AMR-WB CODEC and FLACExtractor signal processing. I reviewed Android code and drafted infringement contentions. (Fitzpatrick, contact Jonathan Sharret)

4/2016 – 11/2017: Consultant to Broadsoft, Inc, *Blinkmind. v Broadsoft*, Case No. 2015-16576 in The District Court of Harris County, TX. I reviewed three different parties' multipoint video conferencing software. I performed a three-way, exhaustive GIT/SVN version comparison to quantify and report on evidence of similarities in the context of allegations of copying and trade-secret misappropriation. (Cooley, LLP, contact Peter Yi)

8/2014-8/2015: Consultant to Art+Com Innovationpool, GmbH in *Art+Com Innovationpool GmbH., v. Google Inc.*, Case No 1:14-cv-00217-UNA to perform code review of Google Earth. (Baker Botts, Ryan Pinckney)

- 5/2014 -11/2016: Consultant to CSX in Integrated Data Communication Systems, Inc. v. CSX Intermodal Terminals, Inc., Case No 2:13-cy-00994. I performed review of both parties' source code and provided fact finding and expert report regarding a trade-secret / copyright dispute. (Gibbons, Christopher Walsh)
- 3/2014: Consultant to Jobscience in Jobscience, Inc. v. CVPartners, Inc. et al, Case No. 3:2013cv04519, California Northern District. Engaged to perform a code review of both party's software in context of a trade-secret and copyright dispute. I provided expert report to the court regarding evidence of copying. (CounselForce, Patrick Terry)
- 11/2013: Consultant to Opentext in OpenText S.A. v. Alfresco Software LTD, Case No. 2:13CV320AWA/LRL; Engaged by Opentext to (i) host, (ii) make operable and (iii) review code of a collaborative software product, in support of infringement contentions. (Cooley)
- 5/2013: Consultant to Siemens Corporation in ROY-G-BIV Corp. v. Siemens Corporation et al., Case No. 6:11-cv-00624-LED (E.D.Tex.) Engaged regarding a Motion-To-Compel: "Production and Deployment of Complete Development Environment Infrastructure" as defendant's expert regarding system builds and industry practices (i.e., Automation Systems, Operator Monitoring Systems, Industrial Controls, Product Lifecycle Management, Microsoft COM and .NET, Visual Studio) (Kirkland, James Medek)
- 2/2013: Consultant to Tomita Technologies in Tomita Technologies USA LLC et al. v. Nintendo Co. Ltd. et al., case number 1:11-cv-04256, in the U.S. District Court for the Southern District of New York. On behalf of Plaintiff, performed code review (C/C++) of 3Dimaging/gaming and stereoscopic camera for plaintiff's '664 patent; I provided declaration, expert report, was deposed on two occasions as software expert and testified at trial. (Stroock & Lavan, Ken Stein)
- 1/2013: Consultant to Daedalus Technology Group, Inc. in Softview v. Huawei: Reviewed open source to locate Webkit pinch-scale feature.
- 8/2012: Consultant to Sony in HumanEyes Technologies, Ltd. V. Sony Electronics, Inc. et al, case number 1:12-cv-00398, Delaware District Court. The case was a patent dispute regarding 3D sweep panorama imaging. (Kenyon, Michael Sander)
- 5/2012: Consultant to Daedalus Technology Group, Inc. in support of a patent dispute. Engaged to develop a benchmark to exercise network switching device features and measure corresponding performance -- assembled legacy hardware, installed boot OS and integration environment, designed, coded and reported on benchmark (LZW compression, C/C++/Ubuntu).
- 2/2012: Consultant to Daedalus Technology Group, Inc. in defense of patents of a university plaintiff client. I reviewed alleged infringing manufacturer's whitepapers and documentation to draft contentions in defense of patents regarding malware detection and network intrusion.
- 6/2011: Consultant to Daedalus Technology Group, Inc. in Apple Inc. v. Nokia Corporation and High Tech Computer Corp. The matter involved a patent dispute for which I developed a software harness and utilities utilizing FFTW and a LLS approximation to exercise embedded voice 3GPP AMR CODEC and analyze the power spectrum, voice activity detection and bandwidth modes (C/C++).
- 1/2011: Consultant to Bidz.com, Inc., in Soverain Software LLC, v. J.C. Penney, et al., case number 6:09-cv-00274 (E.D. Texas). For Bidz.com, in this patent dispute, I analyzed protocol traces focusing on authentication, sessionID and eCommerce protocols and provided the Bidz non-infringement report content. (Seldon & Scillieri, John Scilleri)
- 6/2010: Consultant to Daedalus Technology Group in Spread Spectrum Screening, LLC v. Eastman Kodak Company, case number 10-CV-1101 for the Norther District of Illinois. For the defendant I developed utilities (Java, AWT) for 2D-Fourier spectral analysis of digital image library.

#### **EXPERT TESTIMONY**

3/2022: For Kewazing in Kewazinga v. Google, deposed regarding expert report related to review of the Google Maps Streetview feature.

8/2015: For Tomita in Tomita Technologies USA LLC et al. v. Nintendo Co., testified at trial regarding findings related to review of the Nintendo 3DS software in light of US Federal Circuit Court of Appeal, decision.

4/2015: For Tomita in Tomita Technologies USA LLC et al. v. Nintendo Co., deposed regarding expert report related to review of the Nintendo 3DS software in light of US Federal Circuit Court of Appeal, decision dated, December 8, 2014.

6/2013: For Siemens in ROY-G-BIV Corp. v. Siemens Corporation et al, deposed regarding findings related to plaintiff's "Motion to Compel Production and Deployment".

3/2013: For Tomita in Tomita Technologies USA LLC et al. v. Nintendo Co., deposed regarding review of the Nintendo 3DS software.

Exhibit 2: Method-signature scripted comparison detailed results (5 pages)

	Α	В	С	D	E	F	G	Н	1	J	K	L	M	N
						D						Р		
			D class	s		method	D		not		D	method		
			NOT	D clas	s	NOT	method	identical	identical		method	lineNo		
	soı	rt	found	found	1	found in	found	method	method		lineNo	start - if	f	
1	Se	q D class	in P	in P	D method	P	in P	signature	signature	D sig	start	found	P fName - if found	P sig (if found but not identical)
2		ucSongEntry	0	1	ucSongEntry	0	1	1	0	public ucSongEntry()	17	2468	playbox souece code.txt	
3	3	ucSongEntry	0	1	setSongInfo	0	1	1	0	public void setSongInfo(t_SongQueue aSong)	22	2473	playbox_souece_code.txt	
4		ucSongEntry	0	1	resetSongInfo	0	1	1	0	public void resetSongInfo()	44		playbox_souece_code.txt	
5	3	ucSongEntry	0	1	Dispose	0	1	1	0	protected override void Dispose(bool disposing)	50	2516	playbox souece code.txt	
6	3	ucSongEntry	0	1	InitializeComponent	0	1	1	0	private void InitializeComponent()	56	2525	playbox_souece_code.txt	
7		PlayerAudioUtil	0	1	getVolume	0	1	1	0	public static int getVolume()	15		playbox_souece_code.txt	
8	4	PlayerAudioUtil	0	1	setVolume	0	1	1	0	public static int setVolume(int new_volume)	23	2771	playbox souece code.txt	
9	4	PlayerAudioUtil	0	1	setInitialVolume	0	1	1	0	public static int setInitialVolume()	36	2788	playbox_souece_code.txt	
10	) 5	SSMediaPlayerCommon	0	1	OnGraphEvent	0	1	1	0	public void OnGraphEvent(EventCode eventCode, IntPtr param1, IntPtr param2)	38	2211	ssmedia lite manager source code.txt	
11	5	SSMediaPlayerCommon	0	1	GetCurrentPlayerPosition	0	1	1	0	public int GetCurrentPlayerPosition()	66	2239	ssmedia_lite_manager_source_code.txt	
12	2 5	SSMediaPlayerCommon	0	1	playDemo	0	1	1	0	public bool playDemo(string demoSong)	89	2258	ssmedia_lite_manager_source_code.txt	
13		SSMediaPlayerCommon	0	1	Start	0	1	1	0	public virtual void Start(IWin32Window boss)	95	2264	ssmedia_lite_manager_source_code.txt	
14		SSMediaPlayerCommon	0	1	setAnalogMode	0	1	1	0	public bool setAnalogMode()	100	2269		
15	5 5	SSMediaPlayerCommon	0	1	startMainPlayer	0	1	1	0	public double startMainPlayer(string SongID)	111	2281	ssmedia_lite_manager_source_code.txt	
16	5	SSMediaPlayerCommon	0	1	volumeMute	0	1	1	0	public int volumeMute()	233		ssmedia_lite_manager_source_code.txt	
17		SSMediaPlayerCommon	0	1	volumeSet	0	1	1	0	public int volumeSet(int newVolume)	251		ssmedia_lite_manager_source_code.txt	
18	3 5	SSMediaPlayerCommon	0	1	volumeUp	0	1	1	0	public int volumeUp()	259	2450	ssmedia_lite_manager_source_code.txt	
19		SSMediaPlayerCommon	0	1	volumeDown	0	1	1	0	public int volumeDown()	266	2466	ssmedia_lite_manager_source_code.txt	
20	) 5	SSMediaPlayerCommon	0	1	pitchSet	0	1	1	0	public int pitchSet(int newPitch)	273		ssmedia_lite_manager_source_code.txt	
21	5	SSMediaPlayerCommon	0	1	pitchUp	0	1	1	0	public int pitchUp()	282	2496	ssmedia_lite_manager_source_code.txt	
22	2 5	SSMediaPlayerCommon	0	1	pitchDown	0	1	1	0	public int pitchDown()	292	2511	ssmedia lite manager source code.txt	
23	3	SSMediaPlayerCommon	0	1	tempoSet	0	1	1	0	public int tempoSet(int newTempo)	302	2526	ssmedia_lite_manager_source_code.txt	
24	5	SSMediaPlayerCommon	0	1	tempoUp	0	1	1	0	public int tempoUp()	311	2540	ssmedia_lite_manager_source_code.txt	
25	5 5	SSMediaPlayerCommon	0	1	tempoDown	0	1	1	0	public int tempoDown()	321	2555	ssmedia_lite_manager_source_code.txt	
26	5	SSMediaPlayerCommon	0	1	pauseMainPlayer	0	1	1	0	public bool pauseMainPlayer()	331	2570	ssmedia_lite_manager_source_code.txt	
27	7 5	SSMediaPlayerCommon	0	1	isMainPlaying	0	1	1	0	public bool isMainPlaying()	336	2575	ssmedia_lite_manager_source_code.txt	
28	3 5	SSMediaPlayerCommon	0	1	restartMainPlayer	0	1	1	0	public bool restartMainPlayer()	341	2580	ssmedia_lite_manager_source_code.txt	
29		SSMediaPlayerCommon	0	1	playBG	0	1	1	0	public virtual bool playBG(bool start)	347	2586	ssmedia_lite_manager_source_code.txt	
30		SSMediaPlayerCommon	0	1	stopBG	0	1	1	0	public bool stopBG()	363	2602	ssmedia_lite_manager_source_code.txt	
31		SSMediaPlayerCommon	0	1	WndProc	0	1	1	0	protected override void WndProc(ref Message m)	374	2613	ssmedia_lite_manager_source_code.txt	
32		SSMediaPlayerCommon	0	1	stopMainPlayer	0	1	1	0	public virtual void stopMainPlayer()	389	2634	ssmedia_lite_manager_source_code.txt	
33		SSMediaPlayerCommon	0	1	SetBGPlaying	0	1	1	0	protected virtual void SetBGPlaying()	394	2639	ssmedia_lite_manager_source_code.txt	
34	_	SSMediaPlayerCommon	0	1	SetMainPlaying	0	1	1	0	protected virtual void SetMainPlaying()	398	2643	ssmedia_lite_manager_source_code.txt	
35		SSMediaPlayerCommon	0	1	RefreshStop	0	1	1	0	protected virtual void RefreshStop(bool stop)	402		ssmedia_lite_manager_source_code.txt	
36		SSMediaPlayerCommon	0	1	initDSPlayers	0	1	1	0	protected virtual void initDSPlayers()	409	2655	ssmedia_lite_manager_source_code.txt	
37	_	SSMediaPlayerCommon	0	1	cleanUp	0	1	1	0	public virtual bool cleanUp()	413	2659		
38		SSMediaPlayerCommon	0	1	InitializeComponent	0	1	1	0	private void InitializeComponent()	430	2676	ssmedia_lite_manager_source_code.txt	
39		MediaPlayerImpl	1	0										
40			0	1	RunQueue	0	1	1	0	public static void RunQueue()	13		playbox_souece_code.txt	
42		LocalCommandReceiver LocalCommandReceiver	0	1	Readcmd	0	1	1	0	static void Readcmd(int a) static void CommandEvt(object sender, RemoteEventArgs e)	31 42		playbox_souece_code.txt	
43		LiteManagerReceiver		1	CommandEvt Run	0	1	1	0	public static void Run()	18		playbox_souece_code.txt	
42	_	•	0	1	Read	0				, ,	47		playbox_souece_code.txt	
45		LiteManagerReceiver LiteManagerReceiver	0	1	CommandEvt	0	1	1	0	static void Read(TcpClient client) static void CommandEvt(object sender, RemoteEventArgs e)	66		playbox_souece_code.txt playbox_souece_code.txt	
46		LiteManagerReceiver	0	1	WriteResponse	0	1	1	0	static void Commandevt(object sender, RemoteeventArgs e) static void WriteResponse(NetworkStream ns, KaraokeCommand cmd)	71		playbox_souece_code.txt playbox_souece_code.txt	
47		LiteManagerReceiver	0	1	ReceiveCommand	0	1	1	0	static void Writekesponse(NetworkStream ns, KaraokeCommand cmd) static void ReceiveCommand(BinaryReader reader, KaraokeCommand cmd)	94		playbox_souece_code.txt playbox_souece_code.txt	
48	_	LiteManagerReceiver	0	1	logResponse	0	1	1	0	static void logResponse(KaraokeCommand cmd)	124	3448		
49		RemoteCommandReceive		1	Run	0	1	1	0	public static void Run()	18		playbox_souece_code.txt	
50	_	RemoteCommandReceive	-	1	Read	0	1	1	0	static void Read(TcpClient client)	49		playbox_souece_code.txt playbox_souece_code.txt	
51		RemoteCommandReceive		1	CommandEvt	0	1	1	0	static void CommandEvt(object sender, RemoteEventArgs e)	68		playbox_souece_code.txt	
52		RemoteCommandReceive		1	WriteResponse	0	1	1	0	static void WriteResponse(NetworkStream ns, KaraokeCommand cmd)	73		playbox_souece_code.txt	
53		RemoteCommandReceive	-	1	ReceiveCommand	0	1	1	0	static void ReceiveCommand(BinaryReader reader, KaraokeCommand cmd)	96		playbox_souece_code.txt	
54		RemoteCommandReceive		1	logResponse	0	1	1	0	static void logResponse(KaraokeCommand cmd)	126	3589		
55		ControllerEvent	0	1	CommandHandler	0	1	1	0	public delegate void CommandHandler(object sender, RemoteEventArgs e)	13		playbox_souece_code.txt	
56		L PlayerController	0	1	clearInputBuf	0	1	1	0	public static void clearInputBuf()	18	2926		
57		L PlayerController	0	1	redirectKeys	0	1	1	0	public static void elearmpatour()  public static void redirectKeys(int a)	22		playbox_souece_code.txt	
58		L PlayerController	0	1	processCommands	0	1	1	0	public static void receive (sine difference)  public static void processCommands(KaraokeCommand cmd)	31		playbox_souece_code.txt	
59		L PlayerController	0	1	processRemoteKeys	0	1	1	0	public static void processRemoteKeys(KaraokeCommand cmd)	38		playbox_souece_code.txt	
60		L PlayerController	0	1	processLocalKeys	0	1	1	0	public static void processLocalKeys(KaraokeCommand cmd)	111	3067	playbox_souece_code.txt	
61		frmController	0	1	frmController	0	1	1	0	public frmController()	36		playbox_souece_code.txt	
62		1 frmController	0	1	frmInit	0	1	1	0	public void frmInit()	43		playbox souece code.txt	
					1					p · · · · · · · · · · · · · · · · · · ·				

p. 1 of 5 method Signatures.x lsx: Comparison Results

64 14 frmController 0 1 readyComponents 0 1 1 0 private void readyComponents() 69 68 playbox_souece_code.txt																
Temporary   Company   Co		Α	В	С [	D	E	F	G	Н	I	l	J	K	L	М	N
No.   Company	63	14	frmController	0 :	1	frmController_Load	0	1	1	C	0	private void frmController_Load(object sender, EventArgs e)	52	51	playbox_souece_code.txt	
Formation   Column					1	readyComponents		1	1	0	0	private void readyComponents()		68	playbox_souece_code.txt	
7   1   Professional   C   1     1		14	frmController	0 :	1	clearComponents	0	1	1	C	0	private void clearComponents()	108	111	playbox_souece_code.txt	
Formation																
Formation								1	1		_					
Total Control						•					_	,				
Total contamination										+ -	_					
7   2   Information						•										
7   1   Implications					_					_	_					
1										_	-					
5   1   Information   0   1   Information   0   1   Information   0   Information																
15   1										_		,				
7   3   Professional						•		_			-					
75   16   Configuration   1   1   1   1   1   1   1   1   1										_						
7   1   microcrete   0   1   cond-triving   0   1   1   0   microcrete   0   1   cond-triving   0   1   cond-triving   0   1   1   0   microcrete   0   1   cond-triving   0   cond-triving   0   1   cond-triving   0   cond-triving					_							, , ,				
15   Profestration					_					_	-					
1										_						
20   1   monthropies   0   1   monthspe   0   1   1   1   0   noternal value of motificity (annual command cont)   276   274   19   1900s, passed, post for   28   19   19   19   19   19   19   19   1										_						
32   1										+ -	_					
Fig.   1   microstories   0   1   microstor										_	_					
85   14 Francementer																
15   15   Infrincentrole							-			_						
Fig.   Fine-Controller   0   1   molecularity   0   1   molecularity   0   1   1   0   molecularity   0   1   molecularity   0   mole										_						
88   14   Immortateller					_											
18						•				_		11				
1   Immontation								_			-					
1   1   1   1   1   1   1   1   1   1										_						
Production   Continue					_	•						, ,				
Michael   Mich					_					_	-					
94   16   Imm.Controller   0										_						
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Fig.								_			-				F - 7	
Proceedings											_					
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10   10   10   10   10   10   10   10																
				-	_					_	_					
104   14   frmController										_						
										_		60 00				
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										_						1
111   14																1
112							-				_					
113										_						1
114																1
115   14   frmController																
private void timerTopMsgClear(Object stateInfo)  116 14 frmController						-				_	_				= =	1
116 14 frmController 0 1 timerTopMsgClear 0 1 0 1 private void timerTopMsgClear(object stateInfo) 667 722 playbox_souece_code.txt stateInfo)  117 14 frmController 0 1 clearTopSongInfo 0 1 1 0 private void clearTopSongInfo() 672 728 playbox_souece_code.txt 1  118 14 frmController 0 1 updateSongLabels 0 1 1 0 private void updateSongLabels() 676 732 playbox_souece_code.txt 1  119 14 frmController 0 1 hideBGVideo 0 1 1 0 private void updateSongLabels() 676 732 playbox_souece_code.txt 1  119 14 frmController 0 1 hideBGVideo 0 1 1 0 private void indeBGVideo() 680 736 playbox_souece_code.txt 1  120 14 frmController 0 1 startBGVideo 0 1 1 1 0 private void startBGVideo() 685 741 playbox_souece_code.txt 1  121 14 frmController 0 1 displayScore 0 1 1 1 0 private void displayScore(int min, int max) 685 741 playbox_souece_code.txt 1  122 14 frmController 0 1 setBottomMessage 0 1 1 1 0 private void statBottomMessage(string msg, int duration, bool force) 695 751 playbox_souece_code.txt 1  123 14 frmController 0 1 setPlayerActive 0 1 setPlayerActive 0 1 timerSongQueuePoll_Tick  124 14 frmController 0 1 timerSongQueuePoll_Tick  125 14 frmController 0 1 timerSongQueuePoll_Tick  126 14 frmController 0 1 timerSongQueuePoll_Tick  127 0 private void timerSongQueuePoll_Tick(object sender, EventArgs e) 740 806 playbox_souece_code.txt  128 14 frmController 0 1 timerSongQueuePoll_Tick  129 14 frmController 0 1 timerSongQueuePoll_Tick  120 14 frmController 0 1 timerSongQueuePoll_Tick  121 14 frmController 0 1 timerSongQueuePoll_Tick  122 14 frmController 0 1 timerSongQueuePoll_Tick  123 14 frmController 0 1 timerSongQueuePoll_Tick  124 14 frmController 0 1 timerSongQueuePoll_Tick  125 14 frmController 0 1 timerSongQueuePoll_Tick  126 14 frmController 0 1 timerSongQueuePoll_Tick  127 14 frmController 0 1 timerSongQueuePoll_Tick  128 14 frmController 0 1 timerSongQueuePoll_Tick  129 14 frmCon	115	14	rrmController	0 :	1	moveSong	υ	1	1	C	U	private void moveSong(int oldPosition, int newPosition)	651	/08	piaybox_souece_code.txt	animate maid time art - the Classical
117 14 frmController 0 1 clearTopSonginfo 0 1 1 0 private void clearTopSonginfo() 672 728 playbox_souece_code.txt 1 118 14 frmController 0 1 updateSongLabels 0 1 1 0 private void updateSongLabels() 676 732 playbox_souece_code.txt 1 118 14 frmController 0 1 hideBGVideo 0 1 1 0 private void hideBGVideo() 680 736 playbox_souece_code.txt 1 119 14 frmController 0 1 startBGVideo 0 1 1 0 private void hideBGVideo() 680 736 playbox_souece_code.txt 1 110 private void displayScore(int min, int max) 690 746 playbox_souece_code.txt 1 111 14 frmController 0 1 displayScore 0 1 1 1 0 private void displayScore(int min, int max) 690 746 playbox_souece_code.txt 1 111 14 frmController 0 1 setBottomMessage 0 1 1 1 0 private void setBottomMessage(string msg, int duration, bool force) 695 751 playbox_souece_code.txt 1 112 14 frmController 0 1 setPlayerActive 0 1 1 1 0 public void setPlayerActive() 713 774 playbox_souece_code.txt 1 112 14 frmController 0 1 timerSongQueuePoll_Tick 0 1 1 0 public void setPlayerActive() 713 774 playbox_souece_code.txt 1 112 14 frmController 0 1 timerSongQueuePoll_Tick 0 1 1 0 private void intern_Tick_1(object sender, EventArgs e) 740 806 playbox_souece_code.txt 1 112 14 frmController 0 1 resetCurrentFunctionRequest 0 1 1 0 private void intern_Tick_1(object sender, EventArgs e) 740 806 playbox_souece_code.txt 1 112 14 frmController 0 1 resetCurrentFunctionRequest 0 1 1 0 private void intern_Tick_1(object sender, EventArgs e) 740 806 playbox_souece_code.txt 1 112 14 frmController 0 1 resetCurrentFunctionRequest 0 1 1 0 private void intern_Tick_1(object sender, EventArgs e) 740 806 playbox_souece_code.txt 1 112 14 frmController 0 1 resetCurrentFunctionRequest 0 1 1 0 private void intern_Tick_1(object sender, EventArgs e) 740 806 playbox_souece_code.txt 1	110		Same Company !!			tion Touch Associa	_		_	1 .		and the second of the second o	667	700	to be a second of the second o	
118 14 frmController 0 1 updateSongLabels 0 1 1 0 private void updateSongLabels() 676 732 playbox_souece_code.txt 1 119 14 frmController 0 1 hideBGVideo 0 1 1 0 private void hideBGVideo() 680 736 playbox_souece_code.txt 1 120 14 frmController 0 1 startBGVideo 0 1 1 0 private void startBGVideo() 685 741 playbox_souece_code.txt 1 121 14 frmController 0 1 displayScore 0 1 1 1 0 private void displayScore(int min, int max) 690 746 playbox_souece_code.txt 1 122 14 frmController 0 1 setBottomMessage 0 1 1 1 0 private void startBGVideo() 695 751 playbox_souece_code.txt 1 123 14 frmController 0 1 setPlayerActive 0 1 1 1 0 public void setBottomMessage(string msg, int duration, bool force) 695 751 playbox_souece_code.txt 1 124 14 frmController 0 1 timerSongQueuePoll_Tick 0 1 1 0 public void setPlayerActive() 713 774 playbox_souece_code.txt 1 125 14 frmController 0 1 timerSongQueuePoll_Tick 0 1 1 0 public void timerSongQueuePoll_Tick(object sender, EventArgs e) 717 778 playbox_souece_code.txt 1 125 14 frmController 0 1 timer1_Tick_1 0 1 1 0 private void timer1_Tick_1 (lobject sender, EventArgs e) 740 806 playbox_souece_code.txt 1 126 14 frmController 0 1 timer1_Tick_1 0 1 1 0 private void timer1_Tick_1 (lobject sender, EventArgs e) 740 806 playbox_souece_code.txt 1 126 14 frmController 0 1 timer1_Tick_1 0 1 1 0 private void timer1_Tick_1 (lobject sender, EventArgs e) 740 806 playbox_souece_code.txt 1 127 14 frmController 0 1 timer1_Tick_1 0 1 1 0 private void timer1_Tick_1 (lobject sender, EventArgs e) 740 806 playbox_souece_code.txt 1 128 14 frmController 0 1 timer1_Tick_1 0 1 1 0 private void timer1_Tick_1 (lobject sender, EventArgs e) 740 806 playbox_souece_code.txt 1 129 14 frmController 0 1 timer1_Tick_1 0 1 1 0 private void timer1_Tick_1 (lobject sender, EventArgs e) 740 806 playbox_souece_code.txt 1 129 14 frmController 0 1 timer1_Tick_1 0 1 1 0 private void timer1_Tick_1 (lobject sender, EventArgs e) 740 806 playbox_souece_code.txt 1 129 14 frmController 0 1 timer1_Tick_1 0 1 1 0 private void timer1_Tick_1 (lobject							-									stateinto)
119					_											
120 14 frmController 0 1 startBGVideo 0 1 1 0 private void startBGVideo() 685 741 playbox_souece_code.txt 1 1 1 0 private void displayScore(int min, int max) 690 746 playbox_souece_code.txt 1 1 1 0 private void displayScore(int min, int max) 690 746 playbox_souece_code.txt 1 1 1 0 private void setBottomMessage(string msg, int duration, bool force) 695 751 playbox_souece_code.txt 1 1 1 0 public void setPlayerActive() 713 774 playbox_souece_code.txt 1 1 1 0 public void setPlayerActive() 713 774 playbox_souece_code.txt 1 1 1 0 public void setPlayerActive() 713 774 playbox_souece_code.txt 1 1 1 0 public void setPlayerActive() 1 1 1 0 private void imerSongQueuePoll_Tick(object sender, EventArgs e) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																1
121   14   frmController												·				1
122 14 frmController 0 1 setBottomMessage 0 1 1 0 private void setBottomMessage(string msg, int duration, bool force) 695 751 playbox_souece_code.txt  123 14 frmController 0 1 setPlayerActive 0 1 1 0 public void setPlayerActive() 713 774 playbox_souece_code.txt  124 14 frmController 0 1 timerSongQueuePoll_Tick 0 1 1 0 public void timerSongQueuePoll_Tick(object sender, EventArgs e) 777 778 playbox_souece_code.txt  125 14 frmController 0 1 timer1_Tick 1 0 1 1 0 private void timer1_Tick_1(object sender, EventArgs e) 740 806 playbox_souece_code.txt  126 14 frmController 0 1 resetCurrentFunctionRequest 0 1 1 0 private void timer1_Tick_1(object sender, EventArgs e) 740 806 playbox_souece_code.txt											_	, , , , , , , , , , , , , , , , , , , ,				
123											-					1
124 14 frmController 0 1 timerSongQueuePoll_Tick 0 1 1 0 public void timerSongQueuePoll_Tick(object sender, EventArgs e) 717 778 playbox_souece_code.txt  125 14 frmController 0 1 timer1_Tick_1 0 1 1 0 private void timer1_Tick_1(object sender, EventArgs e) 740 806 playbox_souece_code.txt  126 14 frmController 0 1 resetCurrentFunctionRequest 0 1 1 0 private void resetCurrentFunctionRequest() 749 816 playbox_souece_code.txt										_						1
125 14 frmController 0 1 timer1_Tick_1 0 1 1 timer1_Tick_1 0 1 1 0 private void timer1_Tick_1(object sender, EventArgs e) 740 806 playbox_souece_code.txt 126 14 frmController 0 1 resetCurrentFunctionRequest 0 1 1 0 private void resetCurrentFunctionRequest() 749 816 playbox_souece_code.txt																4
126 14 frmController 0 1 resetCurrentFunctionRequest 0 1 1 0 private void resetCurrentFunctionRequest() 749 816 playbox_souece_code.txt																-
																-
12/ 14  rmController   U   1  getMessageFromPOS   O   1   1   O  private string getMessageFromPOS()   754   821  playbox_souece_code.txt																1
	127	14	trmController	0 :	1	getMessageFromPOS	0	1	1	0	υ	private string getMessageFromPOS()	754	821	playbox_souece_code.txt	<u> </u>

p. 2 of 5 method Signatures.x lsx: Comparison Results

	Α	В	C.	D	E	F	G	Н			J	К	L	М	N
128	14	frmController	0	1	btnTest_Click	0	1	1	0	)	private void btnTest_Click(object sender, EventArgs e)	780	852	playbox_souece_code.txt	
		frmController	0	1	checkSessionOpen	0	1	1	0		private bool checkSessionOpen()	784	859	playbox_souece_code.txt	
		frmController		1	startLocalSession	0	1	1	C	)	private void startLocalSession()	823	907	playbox_souece_code.txt	
		frmController		1	stopLocalSession	0	1	1	C		private void stopLocalSession()	831	916	playbox souece code.txt	
		frmController	0	1	exitSSKMS	0	1	1	C		internal void exitSSKMS()	842	930	playbox souece code.txt	
		frmController		1	isMainPlaying	0	1	1	C	)	internal bool isMainPlaying()	860		playbox souece code.txt	
134	14	frmController	0	1	isMediaPlaying	0	1	1	C	)	internal bool isMediaPlaying()	864	954	playbox_souece_code.txt	
		frmController	0	1	isMediaPaused	0	1	1	C	)	internal bool isMediaPaused()	868	962	playbox souece code.txt	
136	14	frmController	0	1	BringMessageFormFront	0	1	1	C	)	internal void BringMessageFormFront()	872	970	playbox_souece_code.txt	
137	14	frmController	0	1	BringMessageFormTop	0	1	1	C	)	internal void BringMessageFormTop()	876	977	playbox souece code.txt	
138	14	frmController	0	1	SongQueueTimerStart	0	1	1	C	)	internal void SongQueueTimerStart()	880	984	playbox_souece_code.txt	
139	14	frmController	0	1	Dispose	0	1	1	C	)	protected override void Dispose(bool disposing)	885	999	playbox souece code.txt	
140	14	frmController	0	1	InitializeComponent	0	1	1	C	)	private void InitializeComponent()	891	1008	playbox_souece_code.txt	
141	14	frmController	0	1	PlayNextHandler	0	1	1	C	)	public delegate void PlayNextHandler(object sender, EventArgs e)	917	23	playbox_souece_code.txt	
142	14	frmController	0	1	updateSongInfoLabel	0	1	1	C	)	private delegate void updateSongInfoLabel()	918	27	playbox souece code.txt	
143	15	frmRemoteController	0	1	frmRemoteController	0	1	1	C	)	public frmRemoteController()	77	1069	playbox souece code.txt	
144	15	frmRemoteController	0	1	frmController_Load	0	1	1	C	)	private void frmController_Load(object sender, EventArgs e)	82	1074	playbox souece code.txt	
145	15	frmRemoteController	0	1	button1_Click	0	1	1	C	)	private void button1_Click(object sender, EventArgs e)	85	1078		
		frmRemoteController		1	button2_Click	0	1	1	C	)	private void button2_Click(object sender, EventArgs e)	88		playbox_souece_code.txt	
		frmRemoteController	0	1	button3_Click	0	1	1	0	)	private void button3_Click(object sender, EventArgs e)	91		playbox_souece_code.txt	
		frmRemoteController		1	button4_Click	0	1	1	C	)	private void button4_Click(object sender, EventArgs e)	94		playbox_souece_code.txt	
		frmRemoteController		1	button5 Click	0	1	1	C		private void button5 Click(object sender, EventArgs e)	97		playbox souece code.txt	
		frmRemoteController			button7 Click	0	1	1	0	)	private void button7_Click(object sender, EventArgs e)	100		playbox souece code.txt	
		frmRemoteController		1	button8 Click	0	1	1	C		private void button8_Click(object sender, EventArgs e)	103	1096	playbox_souece_code.txt	
_		frmRemoteController		1	button9 Click	0	1	1	C		private void button9 Click(object sender, EventArgs e)	106	1099		
		frmRemoteController			button6 Click	0	1	1	0		private void button6_Click(object sender, EventArgs e)	109		playbox_souece_code.txt	
		frmRemoteController	0		button10 Click	0	1	1	0	)	private void button10 Click(object sender, EventArgs e)	112		playbox souece code.txt	
		frmRemoteController	0	1	button11 Click	0	1	1	0	)	private void button11 Click(object sender, EventArgs e)	115	1108		
		frmRemoteController			btnEnter_Click	0	1	1	0		private void btnEnter Click(object sender, EventArgs e)	118		playbox souece code.txt	
		frmRemoteController			btnExit Click 1	0	1	1	0		private void btnExit Click 1(object sender, EventArgs e)	122		playbox souece code.txt	
		frmRemoteController			buttonKey_Click	0	1	1	0		private void buttonKey Click(object sender, EventArgs e)	126	1119		
		frmRemoteController			Dispose	0	1	1	0		protected override void Dispose(bool disposing)	130		playbox_souece_code.txt	
		frmRemoteController		1	InitializeComponent	0	1	1	0		private void InitializeComponent()	136		playbox_souece_code.txt	
		frmRemoteController			PlayNextHandler	0	1	1	0		public delegate void PlayNextHandler(object sender, EventArgs e)	651		playbox_souece_code.txt	
		frmRemoteController		1	updateSongInfoLabel	0	1	1	0		private delegate void updateSongInfoLabel()	652		playbox_souece_code.txt	
		frmMainMessage			setUlFeedback	0	1	1	0		public bool setUlFeedback(UlControlMode conmode, int level, string command, bool isInfo)	51		playbox_souece_code.txt	
		frmMainMessage		1	frmMainMessage	0	1	1	0		public frmMainMessage()	91	3670		
		frmMainMessage	0	1	frmMainMessage Load	0	1	1	0		private void frmMainMessage Load(object sender, EventArgs e)	115		playbox souece code.txt	
		frmMainMessage			SendBackForm	0	1	1	0		public void SendBackForm()	130		playbox_souece_code.txt	
		frmMainMessage			BringFrontForm	0	1	1	0		public void BringFrontForm()	134		playbox souece code.txt	
		frmMainMessage	0		BringTopMostForm	0	1	1	0		public void BringTopMostForm()	140		playbox_souece_code.txt	
		frmMainMessage	0	1	setSongQueueMsg	0	1	1	0		public void setSongQueueMsg(SongQueue songEntries)	210	3761	playbox_souece_code.txt	
		frmMainMessage			setSongCurrent	0	1	1	0		public void setSongCurrent(t_SongQueue songCurrent)	236		playbox_souece_code.txt	
		frmMainMessage			Start	0	1	1	0		public void Start(IWin32Window boss)	241		playbox_souece_code.txt	
		viavic55agc		-	Start			-		_	public void start(***********************************		3732	playbox_source_courtext	private void
															timerSetBottomLabel(Object
172	16	frmMainMessage	0	1	timerSetBottomLabel	0	1	0	1	L	private void timerSetBottomLabel(object stateInfo)	246	3797	playbox_souece_code.txt	stateInfo)
		frmMainMessage		1	setBottomLabel	0	1	1	0	)	private void setBottomLabel()	252		playbox_souece_code.txt	,
		frmMainMessage	0	1	getMessageFromPOS	0	1	1	0		public string getMessageFromPOS()	261		playbox_souece_code.txt	
		frmMainMessage		1	timerBottomBlink_Tick	0	1	1	0		private void timerBottomBlink_Tick(object sender, EventArgs e)	265		playbox_souece_code.txt	1
		frmMainMessage			displayScore	0	1	1	0		public void displayScore(int min, int max)	278		playbox_souece_code.txt	1
		frmMainMessage			timerScore Tick	0	1	1	0		private void timerScore Tick(object sender, EventArgs e)	291		playbox_souece_code.txt	1
		frmMainMessage	0	1	timerUlFeedback_Tick	0	1	1	0		private void timersure intagosject sender, EventArgs e)  private void timerUlFeedback_Tick(object sender, EventArgs e)	299	3865		1
		frmMainMessage	0	1	setRoomDurationGuestCnt	0	1	1	0		public void setRoomDurationGuestCnt()	314		playbox_souece_code.txt	1
		frmMainMessage	0	1	frmMainMessage_KeyDown	0	1	1	0		private void frmMainMessage KeyDown(object sender, KeyEventArgs e)	338	3901	playbox_souece_code.txt	
		frmMainMessage			Dispose	0	1	1	0		protected override void Dispose(bool disposing)	343		playbox_souece_code.txt	1
		frmMainMessage		1	InitializeComponent	0	1	1	0		private void InitializeComponent()	349	3922		1
		frmMainMessage		1	updateGuestCountDuration	0	1	1	0		private void initializecomponent()  private delegate void updateGuestCountDuration()	643	3622	playbox_souece_code.txt playbox_souece_code.txt	
		frmMainMessage	0	1	updateBottomMessage	0	1	1	0		private delegate void updateGuestCountDatation()  private delegate void updateBottomMessage()	644		playbox_souece_code.txt	
		frmMainMessageBar	0	1	setUIFeedback	0	1	1	0		public bool setUlFeedback(UlControlMode conmode, int level, string command, bool isInfo)	39		playbox_souece_code.txt	1
		frmMainMessageBar	0	1	frmMainMessageBar	0	1	1	0		public frmMainMessageBar()	79		playbox_souece_code.txt playbox_souece_code.txt	1
		frmMainMessageBar	0	1	frmMainMessageBar Load	0	1	1	0		private void frmMainMessageBar Load(object sender, EventArgs e)	92		playbox_souece_code.txt	1
		frmMainMessageBar		1	SendBackForm	0	1	1	0		public void SendBackForm()	107		playbox_souece_code.txt	1
		frmMainMessageBar		1	BringFrontForm	0	1	1	0		public void SendbackForm() public void BringFrontForm()	111		playbox_souece_code.txt playbox_souece_code.txt	1
		frmMainMessageBar			BringTopMostForm	0	1	1	0		public void BringTopMostForm()	117		playbox_souece_code.txt	1
		frmMainMessageBar			setSongQueueMsg	0	1	1	0		public void setSongQueueMsg(SongQueue songEntries)	175		playbox_souece_code.txt	1
ווכון.	1/	ii iiiiviaii iiviesSagebai	U	1	seconigiqueueivisg	U	1	1	(	,	hanne som sersonikranensiskisonikranens sonktilles)	1/2	130/	piaybox_souece_code.txt	1

	А	В	C	D	F	F	G	Н				К	l 1	М	N
	, ,	frmMainMessageBar	0	1	setSongCurrent	0	1	1	0	)	public void setSongCurrent(t_SongQueue songCurrent)	189	1981	playbox_souece_code.txt	
		frmMainMessageBar	0	1	Start	0	1	1	0		public void Start(IWin32Window boss)	196		playbox_souece_code.txt	
.55 1					Start		-	-			pasie voia start(i viiis 2 viiia cii sossi)	150	1507		private void
															timerSetBottomLabel(Object
194 1	17	frmMainMessageBar	0	1	timerSetBottomLabel	0	1	0	1	l	private void timerSetBottomLabel(object stateInfo)	201	1992	playbox_souece_code.txt	stateInfo)
		frmMainMessageBar	0	1	setBottomLabel	0	1	1	0	)	private void setBottomLabel()	207		playbox souece code.txt	,
		frmMainMessageBar	0	1	timerBottomBlink Tick	0	1	1	0	)	private void timerBottomBlink_Tick(object sender, EventArgs e)	216		playbox_souece_code.txt	
		frmMainMessageBar	0	1	displayScore	0	1	1	0	)	public void displayScore(int min, int max)	223		playbox_souece_code.txt	
198 1	17	frmMainMessageBar	0	1	timerScore Tick	0	1	1	0	)	private void timerScore_Tick(object sender, EventArgs e)	237		playbox souece code.txt	
199 1	17	frmMainMessageBar	0	1	timerUIFeedback_Tick	0	1	1	0	)	private void timerUIFeedback_Tick(object sender, EventArgs e)	246	2050	playbox_souece_code.txt	
200 1	17	frmMainMessageBar	0	1	setRoomDurationGuestCnt	0	1	1	0	)	public void setRoomDurationGuestCnt()	261		playbox_souece_code.txt	
201 1	17	frmMainMessageBar	0	1	frmMainMessageBar_KeyDown	0	1	1	0	)	private void frmMainMessageBar_KeyDown(object sender, KeyEventArgs e)	264	2067	playbox_souece_code.txt	
	17	frmMainMessageBar	0	1	Dispose	0	1	1	0	)	protected override void Dispose(bool disposing)	269	2079	playbox_souece_code.txt	
		frmMainMessageBar	0	1	InitializeComponent	0	1	1	0	)	private void InitializeComponent()	275	2088	playbox_souece_code.txt	
		frmMainMessageBar	0	1	updateGuestCountDuration	0	1	1	0	)	private delegate void updateGuestCountDuration()	440	1849	playbox_souece_code.txt	
		frmMainMessageBar	0	1	updateBottomMessage	0	1	1	0	)	private delegate void updateBottomMessage()	441	1851	playbox_souece_code.txt	
		ucUIFeedBack	0	1	ucUIFeedBack	0	1	1	0	)	public ucUlFeedBack()	20	2700	ssmedia_lite_manager_source_code.txt	
		ucUIFeedBack	0	1	setMode	0	1	1	0		public bool setMode(UIControlMode conmode, int level, string command)	24		ssmedia_lite_manager_source_code.txt	
		ucUIFeedBack	0	1	setModeNone	0	1	1	0		private void setModeNone()	46		ssmedia_lite_manager_source_code.txt	
		ucUIFeedBack	0	1	setModeOn	0	1	1	0		private void setModeOn()	52		ssmedia_lite_manager_source_code.txt	
		ucUIFeedBack	0	1	setModePitch	0	1	1	0		private void setModePitch(int level)	58	2738		
		ucUIFeedBack	0	1	setmodeTempo	0	1	1	0		private void setmodeTempo(int level)	117		ssmedia_lite_manager_source_code.txt	
		ucUIFeedBack	0	1	setModeCommand	0	1	1	0		private void setModeCommand(string cmd)	129		ssmedia_lite_manager_source_code.txt	
		ucUIFeedBack	0	1	setModeVolume	0	1	1	0		private void setModeVolume(int level)	135	2823		
		ucUIFeedBack	0	1	Dispose	0	1	1	0		protected override void Dispose(bool disposing)	150		ssmedia_lite_manager_source_code.txt	
		ucUIFeedBack	0	1	InitializeComponent	0	1	1	0		private void InitializeComponent()	156	2869		
		frmWMediaPlayer	0	1	frmWMediaPlayer	0	1	1	0		public frmWMediaPlayer()	19		playbox_souece_code.txt	
		frmWMediaPlayer	0	1	frmWMediaPlayer_Load	0	1	1	0		private void frmWMediaPlayer_Load(object sender, EventArgs e)	25		playbox_souece_code.txt	
		frmWMediaPlayer	0	1	Start	0	1	1	0	_	public override void Start(IWin32Window boss)	31	4279	1 - 7	
		frmWMediaPlayer	0	1	playBG	0	1	1	0		public override bool playBG(bool start)	36		playbox_souece_code.txt	
		frmWMediaPlayer	0	1	SetBGPlaying	0	1	1	0		protected override void SetBGPlaying()	52		playbox_souece_code.txt	
		frmWMediaPlayer	0	1	SetMainPlaying	0	1	1	0		protected override void SetMainPlaying()	59		playbox_souece_code.txt	
		frmWMediaPlayer	0	1	cleanUp	0	1	1	0		public override bool cleanUp()	66		playbox_souece_code.txt	
		frmWMediaPlayer	0	1	frmWMediaPlayer_KeyDown	0	1	1	0		private void frmWMediaPlayer_KeyDown(object sender, KeyEventArgs e)	81	4329		
		frmWMediaPlayer	0	1	Dispose	0	1	1	0	_	protected override void Dispose(bool disposing)	86		playbox_souece_code.txt	
		frmWMediaPlayer	0	1	InitializeComponent	0	1	1	0		private void InitializeComponent()	92		playbox_souece_code.txt	
		frmWMediaPlayerBar	0	1	frmWMediaPlayerBar	0	1	1	0		public frmWMediaPlayerBar()	19		playbox_souece_code.txt	
		frmWMediaPlayerBar	0	1	initDSPlayers	0		1	0		protected override void initDSPlayers()	24		playbox_souece_code.txt	
		frmWMediaPlayerBar frmWMediaPlayerBar	0	1	frmWMediaPlayerBar_Load Start	0	1		0		private void frmWMediaPlayerBar_Load(object sender, EventArgs e) public override void Start(IWin32Window boss)	29 36		playbox_souece_code.txt	
		frmWMediaPlayerBar			playBG	0		1			public override void Start(IWIn32WIndoW boss) public override bool playBG(bool start)	42		playbox_souece_code.txt	
			0	1		0	1	1	0			58		playbox_souece_code.txt	
		frmWMediaPlayerBar frmWMediaPlayerBar	0	1	SetBGPlaying SetMainPlaying	0	1	1	0		protected override void SetBGPlaying() protected override void SetMainPlaying()	65		playbox_souece_code.txt playbox_souece_code.txt	
		frmWMediaPlayerBar	0	1	cleanUp	0	1	1	0		public override bool cleanUp()	72	2345		
		frmWMediaPlayerBar	0	1	frmWMediaPlayerBar KeyDown	0	1	1	0		private void frmWMediaPlayerBar KeyDown(object sender, KeyEventArgs e)	87	2345		
		frmWMediaPlayerBar	0	1	Dispose	0	1	1	0		protected override void Dispose(bool disposing)	92		playbox_souece_code.txt	
		frmWMediaPlayerBar	0	1	InitializeComponent	0	1	1	0	_	private void InitializeComponent()	98	2381		
		sskmsSplash	0	1	sskmsSplash	0	1	1	0		public sskmsSplash()	24		playbox_souece_code.txt	
		sskmsSplash	0	1	isSplashFinished	0	1	1	0		public static bool isSplashFinished()	28		playbox_souece_code.txt	
		sskmsSplash	0	1	ShowForm	0	1	1	0		public static void ShowForm()	32	2827	playbox_souece_code.txt	
		sskmsSplash	0	1	CloseForm	0	1	1	0		public static void CloseForm()	39		playbox_souece_code.txt	
		sskmsSplash	0	1	ShowSplashScreen	0	1	1	0		public static void ShowSplashScreen()	43	2838		
		sskmsSplash	0	1	CloseSplashForm	0	1	1	0		public static void CloseSplashForm()	52	2847	playbox_souece_code.txt	
		sskmsSplash	0	1	timer1_Tick	0	1	1	0		static void timer1_Tick(object sender, EventArgs e)	56	2851	playbox_souece_code.txt	
		sskmsSplash	0	1	sskmsSplash Load	0	1	1	0	_	private void sskmsSplash Load(object sender, EventArgs e)	81	2877	playbox_souece_code.txt	
		sskmsSplash	0	1	Dispose	1	0		T			1		, ,	
		sskmsSplash	0	1	InitializeComponent	1	0		1						
		Program	0	1	Main	0	1	1	0	)	public static void Main()	18	1733	playbox souece code.txt	
248 2	24	KeyIntercept	0	1	startInterceptKey	0	1	1	0	)	public static void startInterceptKey(object obj)	17		playbox_souece_code.txt	
249 2	24	KeyIntercept	0	1	stopInterceptKey	0	1	1	0	)	public static void stopInterceptKey()	28		playbox souece code.txt	
250 2	24	KeyIntercept	0	1	SetHook	0	1	1	0		static IntPtr SetHook(LowLevelKeyboardProc proc)	33		playbox souece code.txt	
		KeyIntercept	0	1	HookCallback	0	1	1	0	)	static IntPtr HookCallback(int nCode, IntPtr wParam, IntPtr IParam)	41		playbox souece code.txt	
		KeyIntercept	0	1	LowLevelKeyboardProc	0	1	1	0		private delegate IntPtr LowLevelKeyboardProc(int nCode, IntPtr wParam, IntPtr lParam)	56		playbox souece code.txt	
		Util	0	1	ConvertUsToVolume	0	1	1	0	)	public static int ConvertUsToVolume(int level)	10		ssmedia_lite_manager_source_code.txt	
254 2			0	1	ConvertVolumeToUs	0	1	1	0	)	public static int ConvertVolumeToUs(int level)	19		ssmedia lite manager source code.txt	
											D				

p. 4 of 5 method Signatures.x lsx: Comparison Results

Α	В	C D	E	F	G	Н	- 1	J K	L	M	N
				D					P		
		D class	me	thod	D		not	D	metho	d	
		NOT D class	N	IOT n	nethod	identical	identical	metho	lineN		
sort		found found	fou	ınd in	found	method	method	lineNo	start -	if	
255 <b>Seq</b>	D class	in P in P	D method	P	in P s	signature	signature	D sig start	found	P fName - if found	P sig (if found but not identical)
256	TOTALS	1 252		2	250	247	3				

p. 5 of 5 method Signatures.x lsx: Comparison Results